

Access DB# 350974

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HARDEE Examiner #: \_\_\_\_\_ Date: 2/08  
Art Unit: 1751 Phone Number 305-5599 Serial Number: 09/545,868  
Mail Box and Bldg/Room Location: 9B36 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Whatever you can find on the  
attached.  
Thanks

95/23204

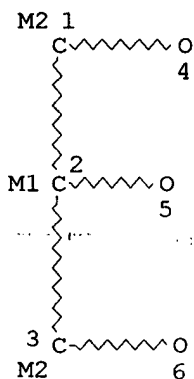
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## STAFF USE ONLY

|  | Type of Search         | Vendors and cost where applicable |
|--|------------------------|-----------------------------------|
| Searcher: <u>JD8</u>                   | NA Sequence (#) _____  | STN <u>✓</u>                      |
| Searcher Phone #: <u>8-4139</u>        | AA Sequence (#) _____  | Dialog _____                      |
| Searcher Location: <u>SLC 1700</u>     | Structure (#) <u>✓</u> | Questel/Orbit _____               |
| Date Searcher Picked Up: _____         | Bibliographic _____    | Dr.Link _____                     |
| Date Completed: <u>2-9-01</u>          | Litigation _____       | Lexis/Nexis _____                 |
| Searcher Prep & Review Time: <u>75</u> | Fulltext _____         | Sequence Systems _____            |
| Clerical Prep Time: <u>10</u>          | Patent Family _____    | WWW/Internet _____                |
| Online Time: <u>35</u>                 | Other _____            | Other (specify) _____             |

L9  
L12

SCR 1838  
STR



NODE ATTRIBUTES:

|        |       |    |   |
|--------|-------|----|---|
| HCOUNT | IS M2 | AT | 1 |
| HCOUNT | IS M1 | AT | 2 |
| HCOUNT | IS M2 | AT | 3 |
| NSPEC  | IS C  | AT | 1 |
| NSPEC  | IS C  | AT | 2 |
| NSPEC  | IS C  | AT | 3 |
| NSPEC  | IS C  | AT | 4 |
| NSPEC  | IS C  | AT | 5 |
| NSPEC  | IS C  | AT | 6 |

DEFAULT MLEVEL IS ATOM  
MLEVEL IS CLASS AT 1 2 3 4 5 6  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

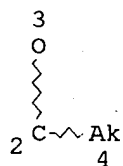
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L15 STR

H 5

G1 1



VAR G1=5/2

NODE ATTRIBUTES:

|       |      |    |   |
|-------|------|----|---|
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| NSPEC | IS C | AT | 2 |
| NSPEC | IS C | AT | 3 |
| NSPEC | IS C | AT | 4 |

DEFAULT MLEVEL IS ATOM  
MLEVEL IS CLASS AT 2 3 4 5  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L17 32587 SEA FILE=REGISTRY SSS FUL L12 AND L15 NOT L9  
 L19 99761 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L20 47758 SEA FILE=HCAPLUS ABB=ON PLU=ON (SURFACE ACTIVE AGENTS AND  
 DETERGENTS)/CC  
 L21 1888 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND L19  
 L33 827 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND (GLYCERID? OR  
 TRIGLYCERID? OR GLYCEROL? OR MONOGLYCER? OR DIGLYCER?)/IT  
 L34 243 SEA FILE=HCAPLUS ABB=ON PLU=ON (FATTY(3A)ACID)/IT AND L33  
 L35 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (BATH? OR DISH? OR WASH? OR  
 HAIR)/IT AND L34

L17 32587 SEA FILE=REGISTRY SSS FUL L12 AND L15 NOT L9  
 L19 99761 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L20 47758 SEA FILE=HCAPLUS ABB=ON PLU=ON (SURFACE ACTIVE AGENTS AND  
 DETERGENTS)/CC  
 L21 1888 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND L19  
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 TRIGLYCERID? OR GLYCEROL? OR MONOGLYCER? OR DIGLYCER?)/IT  
 L34 243 SEA FILE=HCAPLUS ABB=ON PLU=ON (FATTY(3A)ACID)/IT AND L33  
 L35 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (BATH? OR DISH? OR WASH? OR  
 HAIR)/IT AND L34

L35 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:741057 HCAPLUS

DN 133:311153

TI Composition comprising a mixture of alkoxyated mono-, di- and triglycerides and glycerol and detergent composition therefrom

IN ~~Bermesjo, Oses, Maria Jose; Mundo, Blanch Miquel; Siscart, Laguna Nuria; Castan, Barberan Pilar; Vilaret, Ferrer Josep~~

PA Kao Corporation, S.A., Spain

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D001-74

CC 46-2 (Surface Active Agents and Detergents)

FAN: CNT 1

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|----|------------|------|----------|-----------------|----------|
| PI | EP 1045021 | A1   | 20001018 | EP 1999-106233  | 19990413 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

OS MARPAT 133:311153

AB Comps. comprising a mixt. of alkoxyated mono-, di-, and triglycerides and glycerin of the following formula are disclosed: R' representing H or CH<sub>3</sub>, and each of m, n, and l independently representing a no. from 0 to 4, the sum of m, n and l being in the range of from 1 to 4, each of B1, B2, and B3 representing H or wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.; and the wt. ratio of triglyceride/diglyceride/monoglyceride being 46 to 90/9 to 35/1 to 15. Also disclosed are methods for the prepn. of these comps. and detergent products comprising these comps.

ST ethoxylated propoxylated glyceride glycerol transesterification prepn detergent compn

IT **Fatty acids**, reactions

RL: RCT (Reactant)

(coco, Me esters; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Glycerides**, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coco, ethoxylated; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Fatty acids**, reactions

**Glycerides**, reactions

RL: RCT (Reactant)

(coco; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT Shampoos

(compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Glycerides**, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Hair preparations**

(conditioners; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn.

therefrom)

IT Shampoos  
(conditioning; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT Detergents  
(dishwashing; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT Fats and **Glyceridic** oils, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(ethoxyated; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT Bath preparations  
(gels; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Glycerides**, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(palm kernel-oil, ethoxyated; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Fatty acids**, reactions  
RL: RCT (Reactant)  
(palm-oil, Me esters; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **Fatty acids**, reactions  
**Glycerides**, reactions  
RL: RCT (Reactant)  
(palm-oil; compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **25791-96-2DP**, Polypropylene oxide, **glycerol** ether (3:1), **fatty acid esters 31694-55-ODP**, **fatty acid esters**  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

IT **56-81-5**, **Glycerol**, uses  
RL: RCT (Reactant); TEM (Technical or engineered material use); USES (Uses)  
(compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

RE.CNT 3

RE

(1) Colgate Palmolive Co; WO 9816605 A 1998 HCAPLUS

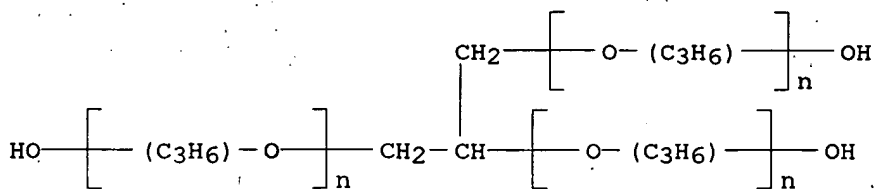
(2) Kao Corp Sa; EP 0579887 A 1994 HCAPLUS

(3) Kao Corp Sa; EP 0586323 A 1994 HCAPLUS

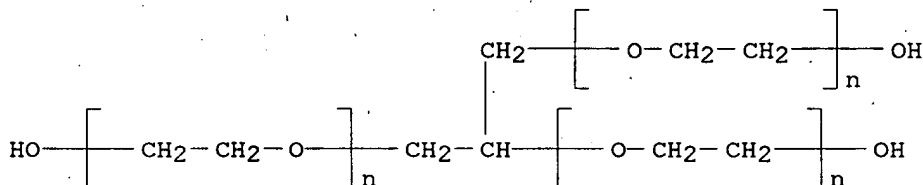
IT **25791-96-2DP**, Polypropylene oxide, **glycerol** ether (3:1), **fatty acid esters 31694-55-ODP**, **fatty acid esters**  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(compn. comprising a mixt. of alkoxyated mono-, di- and **triglycerides** and **glycerol** and detergent compn. therefrom)

RN **25791-96-2** HCAPLUS

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)]

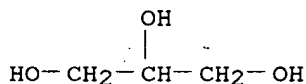


RN 31694-55-0 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT 56-81-5, Glycerol, uses  
 RL: RCT (Reactant); TEM (Technical or engineered material use); USES  
 (Uses)  
 (compn. comprising a mixt. of alkoxyated mono-, di- and  
 triglycerides and glycerol and detergent compn. therefrom)

RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L35 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:389116 HCAPLUS

DN 133:32118

TI Drying and finishing agent for plastic tableware in automatic dishwashers

IN Hamamichi, Yoshiko; Maruyama, Shinji

PA T-Poll K. K.degree., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C11D007-60

ICS B01D012-00; C11D007-26

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | JP 2000160195   | A2   | 20000613 | JP 1998-333263  | 19981124 |
| AB | The agent suppressing the formation of water spots on plastic tableware comprises (A) esters of polyglycerols contg. .gtoreq.50% single polyglycerol with degree of polymn. n (n = 3-5) and C <sub>2n</sub> -C <sub>2n+4</sub> fatty acids and (B) esters of sorbitan, sorbitol and/or sorbite and C <sub>8</sub> -12 fatty acids. A compn. contained polyglycerol monocaprylates (triglycerol ester content 60%) 15, sorbitan monocaprylate 15, propylene glycol 17, EtOH 30, and water 23 g, showing low foaming and good spot suppression. |      |          |                 |          |
| ST | drying finishing agent plastic tableware dishwasher; polyglycerol caprylate drying agent tableware dishwasher   |      |          |                 |          |

IT, Detergents  
 (dishwashing; fatty acid ester-based  
 drying and finishing agent for plastic tableware in automatic  
 dishwashers)

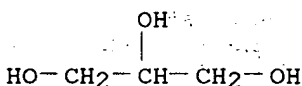
IT Drying agents  
 (fatty acid ester-based drying and finishing agent  
 for plastic tableware in automatic dishwashers)

IT Household furnishings  
 (tableware; fatty acid ester-based drying and  
 finishing agent for plastic tableware in automatic dishwashers)

IT 56-81-5D, Glycerol, polymers, fatty  
 acid ester 1338-39-2, Sorbitan monolaurate 39438-11-4,  
 Sorbitan monodecanoate 51033-28-4 51033-30-8, Triglycerol monocaprates  
 60177-36-8, Sorbitan monocaprylate 123609-89-2 128738-83-0  
 146599-33-9 205924-65-8 273380-01-1 273380-02-2  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fatty acid ester-based drying and finishing agent  
 for plastic tableware in automatic dishwashers)

IT 56-81-5D, Glycerol, polymers, fatty  
 acid ester  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (fatty acid ester-based drying and finishing agent  
 for plastic tableware in automatic dishwashers)

RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L35 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:43524 HCAPLUS  
 DN 132:94990  
 TI Drying compositions for automatic tableware washers  
 IN Yamamoto, Nobuo  
 PA C and G K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D017-00  
 ICS C11D001-74; C11D003-20; C11D003-43  
 CC 46-4 (Surface Active Agents and  
 Detergents)

FAN.CNT 1

|    | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---------------|------|----------|-----------------|----------|
| PI | JP 2000017295 | A2   | 20000118 | JP 1998-182141  | 19980629 |
|    | JP 2962476    | B2   | 19991012 |                 |          |
|    | JP 2962476    | B1   | 19991012 |                 |          |

AB The title compns. comprise (a) 6-40% polyol fatty acid esters with HLB  
 3-10 (e.g., propylene glycol oleate, propylene glycol myristate, sorbitol  
 oleate, sorbitol laurate, glycerol oleate), (b) 0.1-15% gluconic acid  
 and/or its salts (e.g., K gluconate, Na gluconate), and (c) water,  
 ethanol, propylene glycol, glycerol, and/or dipropylene glycol.

ST automatic tableware washer drying compn; polyol fatty ester dishwasher  
 drying compn; propylene glycol fatty ester dishwasher drying compn;  
 sorbitol fatty ester dishwasher drying compn; glycerol fatty ester  
 dishwasher drying compn; ethanol polyol fatty ester dishwasher drying  
 compn

IT Dishwashing  
 (automatic devices for; drying compns. for automatic tableware  
 washers)

IT, Drying agents  
(drying compns. for automatic tableware washers)

IT Glycols, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(drying compns. for automatic tableware washers)

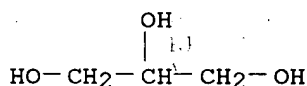
IT **Fatty acids, uses**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(esters; drying compns. for automatic tableware washers)

IT Esters, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(fatty; drying compns. for automatic tableware washers)

IT **56-81-5, Glycerol, uses** 57-55-6, Propylene glycol,  
uses 64-17-5, Ethanol, uses 299-27-4, Potassium gluconate 526-95-4,  
Gluconic acid 527-07-1, Sodium gluconate 1330-80-9, Propylene glycol  
monooleate 25265-71-8, Dipropylene glycol **25496-72-4**,  
**Glycerol oleate 26402-22-2**, Decanoic acid, monoester  
with 1,2,3-propanetriol **27215-38-9** 29059-24-3, Propylene  
glycol myristate 53637-07-3, Sorbitol laurate 55838-97-6, Sorbitol  
oleate 108175-14-0, D-Glucitol, decanoate  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(drying compns. for automatic tableware washers)

IT **56-81-5, Glycerol, uses 25496-72-4**,  
**Glycerol oleate 26402-22-2**, Decanoic acid, monoester  
with 1,2,3-propanetriol **27215-38-9**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(drying compns. for automatic tableware washers)

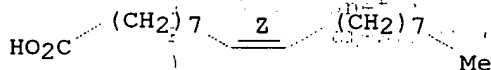
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



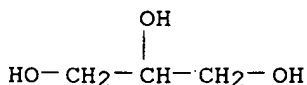
RN 25496-72-4 HCAPLUS  
CN 9-Octadecenoic acid (9Z)-, monoester with 1,2,3-propanetriol (9CI) (CA  
INDEX NAME)

CM 1  
CRN 112-80-1  
CMF C18 H34 O2  
CDES 2:2

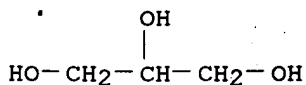
Double bond geometry as shown.



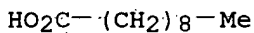
CM 2  
CRN 56-81-5  
CMF C3 H8 O3



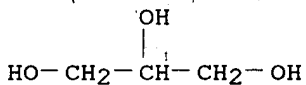




RN 26402-22-2 HCAPLUS  
 CN Decanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 334-48-5  
 CMF C10 H20 O2



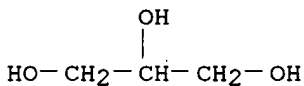
CM 2  
 CRN 56-81-5  
 CMF C3 H8 O3



RN 27215-38-9 HCAPLUS  
 CN Dodecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 143-07-7  
 CMF C12 H24 O2



CM 2  
 CRN 56-81-5  
 CMF C3 H8 O3



L35 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1999:3449 HCAPLUS  
 DN 130:68211  
 TI Mild, biodegradable alkyl polyglycoside-free surfactant compositions containing a hydrophobically modified polyaspartic acid derivative  
 IN Gruning, Burghard; Simpelkamp, Jorg; Weitemeyer, Christian  
 PA Th. Goldschmidt A.-G., Germany  
 SO Eur. Pat. Appl., 7 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM C11D003-37  
 ICS A61K007-06; A61K007-16; A61K007-48

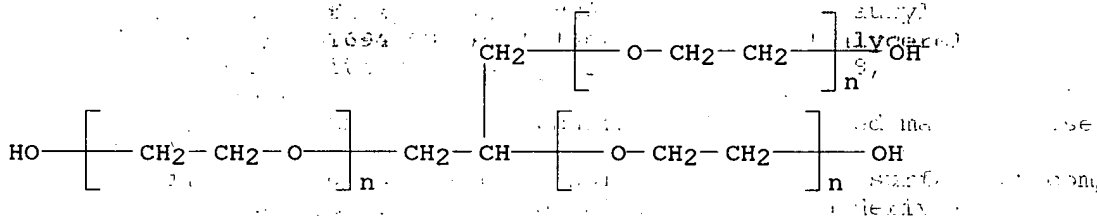
CC. 46-6 (Surface Active Agents and Detergents)

Section cross-reference(s): 62

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | EP 884380  | A2   | 19981216 | EP 1998-109729  | 19980528 |
|      | EP 884380  | A3   | 19991117 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO  |      |          |                 |          |
| PRAI | DE 1997-19724590   |      | 19970611 |                 |          |
| AB   | Mild surfactant compns., useful for cleaning and as cosmetics, contg. .gtoreq.1 hydrophobically modified polyaspartic acid deriv. exhibit better biodegradability than similar compds. contg. alkyl polyglycosides.  |      |          |                 |          |
| ST   | biodegradable surfactant compn hydrophobic polyaspartic acid deriv; cosmetic biodegradable hydrophobic polyaspartic acid deriv; detergent biodegradable hydrophobic polyaspartic acid deriv; alkyl polyglycoside replacement biodegradable surfactant compn                          |      |          |                 |          |
| IT   | Detergents<br>(biodegradable; mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for detergents)   |      |          |                 |          |
| IT   | Bath preparations<br>(bubble; mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for bubble baths)   |      |          |                 |          |
| IT   | Shaving preparations<br>(creams; mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for shaving creams)  |      |          |                 |          |
| IT   | Coco fatty acids<br>RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)<br>(esters, with polyethylene glycol glycerol ether; mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv.)   |      |          |                 |          |
| IT   | Amphoteric surfactants<br>Anionic surfactants<br>Biodegradable materials<br>Cationic surfactants<br>Nonionic surfactants<br>Zwitterionic surfactants<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv.) |      |          |                 |          |
| IT   | Cosmetics<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for cosmetics)  |      |          |                 |          |
| IT   | Dishwashing detergents<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for dishwashing detergents)  |      |          |                 |          |
| IT   | Liquid soaps<br>RL: MSC (Miscellaneous)<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for liq. soaps)   |      |          |                 |          |
| IT   | Mouthwashes<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for mouth rinses)   |      |          |                 |          |
| IT   | Shampoos<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for shampoos)  |      |          |                 |          |
| IT   | Shaving preparations<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for shaving lotions)   |      |          |                 |          |
| IT   | Dentifrices<br>(mild, biodegradable alkyl polyglycoside-free surfactant compns. contg.   |      |          |                 |          |

a hydrophobically modified polyaspartic acid deriv. for tooth paste)  
 IT 107-43-7D, coco amidopropyl deriv.  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (cocoamidopropyl betaines; mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv.)  
 IT 31586-29-5DP, Polysuccinimide, ring-opened, decanol esters, hydrolyzed  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv.)  
 IT 112-80-1D, Oleic acid, esters with polyethylene glycol **glycerol** ether and coco **fatty acids** 9004-82-4, Sodium lauryl ether sulfate **31694-55-0D**, Polyethylene glycol **glycerol** ether, esters with coco **fatty acids** 156511-15-8, Tego Betain F50  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv.)  
 IT 218166-41-7P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv. for lig. detergents)  
 IT **31694-55-0D**, Polyethylene glycol **glycerol** ether, esters with coco **fatty acids**  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (mild, biodegradable alkyl polyglycoside-free surfactant compns. contg. a hydrophobically modified polyaspartic acid deriv.)  
 RN 31694-55-0 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.,.alpha.,-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L35 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1999:3426 HCAPLUS  
 DN 130:83238  
 TI Mild surfactant compositions with copolymeric polyaspartic acid derivatives for cosmetics or cleaning  
 IN Gruning, Burghard; Rau, Harald; Simpelkamp, Jorg; Weitemeyer, Christian  
 PA Th. Goldschmidt A.-G., Germany  
 SO Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM C08G073-10  
 ICS C11D003-37; A61K007-06; A61K007-16; A61K007-48  
 CC 46-6 (Surface Active Agents and Detergents)

Section cross-reference(s): 62

FAN.CNT 1

| PATENT NO. | KIND  | DATE  | APPLICATION NO. | DATE  |
|------------|-------|-------|-----------------|-------|
| -----      | ----- | ----- | -----           | ----- |

PI, EP 884344 A2 19981216 EP 1998-109730 19980528  
 EP 884344 A3 19991117  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 PRAI DE 1997-19724589 19970611

AB The compns. comprise an essentially linear aspartic acid copolymer and .gtoreq.1 surfactant, or .gtoreq.2 surfactants if .gtoreq.1 of them is anionic. The aspartic acid copolymers are derived from .gtoreq.1 .alpha., .beta.-unsatd. dicarboxylic acid (esp. maleic acid) monoester and NH3 or the salt thereof. Thus, heating a 1:3 mixt. of monodecyl maleate and monoethyl maleate with NH3 in iso-BuCOMe for 4-6 h at 120-140.degree. under reduced pressure gave an aspartic acid copolymer in which 70% of the units were free acid, 20% the decyl ester, and 5% the Et ester. Formulations incorporating this and similar copolymers are given for liq. soap, soap bars, toothpaste, etc.

ST polyaspartic acid ester surfactant formulation

IT Ethoxylated hydrogenated castor oil  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Tagat R 40; mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters and)

IT **Glycerides**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coco, ethoxylated, Tegosoft GC; mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters and)

IT **Coco fatty acids**  
 RL: TEM (Technical or engineered material use); USES (Uses) 28  
 (esters with sucrose, Tegosoft LSE 65K; mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters and)

IT **Dentifrices**  
**Dishwashing** detergents  
 Mouthwashes  
 Shampoos  
 Surfactants  
 (mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters)

IT 5303-24-2, Octyl laurate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (Tegosoft OL; mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters and)

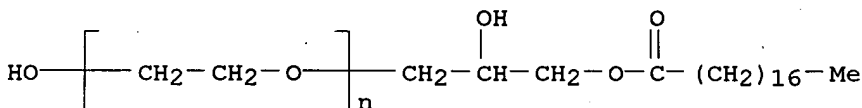
IT 217961-69-8P, Poly(aspartic acid) decyl ethyl ester 217961-78-9P, Poly(aspartic acid) dodecyl ethyl ester 217961-84-7P, Poly(aspartic acid) cetyl ethyl ester 217961-88-1P, Poly(aspartic acid) ethyl stearyl ester  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (mild surfactant compns. for cosmetics or cleaning)

IT 8043-29-6, Tegin M 9004-82-4, Texapon N 28 9005-64-5, G 4280  
 51852-65-4, Tagat S 58450-52-5 68822-59-3, Elfan OS 46  
 156511-15-8, TEGO Betain F 50 172521-05-0, Datamuls 43 178463-54-2, Tego Glucosid 810 178463-55-3, TEGO Glucosid 1216 188735-42-4, Tego Betain CKD 200217-18-1, Antil 171 218433-36-4, Antil HS 60 218433-43-3, Tego Pearl N 100 218433-55-7, Tego Glycinat 818  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters and)

IT 217958-17-3P, Monodecyl maleate-monoethyl maleate-ammonia copolymer 217958-20-8P, Monodecyl maleate-monoethyl maleate-ammonia copolymer 217958-22-0P, Monocetyl maleate-monoethyl maleate-ammonia copolymer 217958-24-2P, Monoethyl maleate-monostearyl maleate-ammonia copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (of poly(aspartic acid) structure; mild surfactant compns. for cosmetics or cleaning)

IT 51852-65-4, Tagat S  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (mild surfactant compns. for cosmetics or cleaning contg. poly(aspartic acid) esters and)

RN 51852-65-4 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-hydroxy-3-[(1-oxooctadecyl)oxy]propyl]-.omega.-hydroxy- (9CI) (CA INDEX NAME)



L35 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1998:450745 HCAPLUS

DN 129:190779

TI Mild detergent compositions containing amide ether carboxylic acid salts and glyceride alkoxyates

IN Shoji, Kenso; Ide, Kazutoshi

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C11D001-06

ICS C11D001-722, C11D003-20

CC 46-6. (Surface Active Agents and Detergents)

FAN. CNT. 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

|                |    |          |                |          |
|----------------|----|----------|----------------|----------|
| PI JP 10183168 | A2 | 19980714 | JP 1996-349860 | 19961227 |
|----------------|----|----------|----------------|----------|

AB The title compns. contain (A) amide ether carboxylic acid salts  
 RC(:O)NA(EO)n(PO)mCH<sub>2</sub>CO<sub>2</sub>M [I; R = C<sub>5</sub>-21 alkyl, alkenyl; n + m = 1-20; m, n = 0-20; EO = oxyethylene; PO = oxypropylene; A = (EO)<sub>k</sub>(PO)<sub>j</sub>CH<sub>2</sub>CO<sub>2</sub>M, (EO)<sub>k</sub>(PO)<sub>j</sub>H, H, C<sub>1</sub>-3 alkyl; k + j = 1-20; k, j = 0-20; M = alkali metal, alk. earth metal, amine, alkanolamine], (B) amide ethers  
 RC(:O)NB(EO)n(PO)mH [II; B = (EO)<sub>k</sub>(PO)<sub>j</sub>H, H, C<sub>1</sub>-3 alkyl], and (C) glyceride alkoxyates, [CH<sub>2</sub>O(AO)mX<sub>1</sub>][CHO(AO)nX<sub>2</sub>][CH<sub>2</sub>O(AO)pX<sub>3</sub>] [III; X<sub>1</sub>-X<sub>3</sub> = C(:O)R<sub>1</sub>, H; R<sub>1</sub> = C<sub>7</sub>-21 alkyl, alkenyl; A = C<sub>2</sub>-4 alkylene; av. mol. no. of alkylene oxide 0-10], where the content of III (X<sub>1</sub> = X<sub>2</sub> = X<sub>3</sub> = H) is 0-4%, III (1 of X<sub>1</sub>-X<sub>3</sub> .noteq. H) 0-40%, III (2 of X<sub>1</sub>-X<sub>3</sub> .noteq. H) 0-40%, and III (3 of X<sub>1</sub>-X<sub>3</sub> .noteq. H) .gtoreq.50%, at wt. ratio A/B 0.1-100 and C content 0.01-40%. Thus, a compn. contg. I (R = C<sub>11</sub>H<sub>23</sub>, n = 2, m = 0, A = H, M = Na), II (R = C<sub>11</sub>H<sub>23</sub>, n = 1, m = 0, B = H), and a glyceride alkoxyate obtained from soybean oil and ethylene oxide showed high detergency and foamability and was mild to skin.

ST detergent amide ether carboxylate salt; glyceride alkoxyate dishwashing detergent; soybean ethoxylated dishwashing detergent

IT **Glycerides**, uses

RL: MOA (Modifier or additive use); USES (Uses)  
 (alkoxyates; mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

IT Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (amides, carboxylic acid salts; mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

IT Detergents

**Dishwashing** detergents  
 (mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (reaction products with soya **glyceride**; mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

IT **Glycerides, uses**  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (soya, ethoxylated; mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

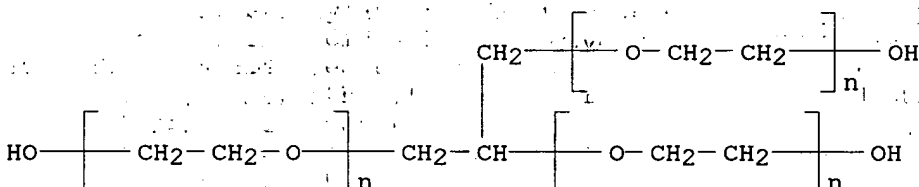
IT 25322-68-3DP, reaction products with soya **glyceride**  
**31694-55-ODP**, Ethoxylated glycerin, reaction products with soybean oil **fatty acid** ester  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

IT 142-78-9 32993-46-7 60828-88-8 112409-52-6 174303-62-9  
 174303-64-1 179471-61-5 208393-48-0 211638-43-6  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

IT **31694-55-ODP**, Ethoxylated glycerin, reaction products with soybean oil **fatty acid** ester  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (mild detergents contg. polyoxyalkyleneamide carboxylic acid salts and **glyceride** alkoxyates)

RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha., .alpha. "1,2,3"  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L35 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1998:379211 HCAPLUS

DN 129:55769

TI Manufacture of alkoxyated amides and their use in washing and cleaning products and toiletries

IN Oftring, Alfred; Oetter, Guenter; Baur, Richard; Borzyk, Oliver; Burkhart, Bernd; Ott, Christian; Aus dem Kahmen, Martin

PA BASF A.-G., Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C233-18

ICS C07C231-14; C11D001-72; A61K007-00; A61K007-50; A61K007-075;

C08G065-26; B01F017-42

CC 46-3 (Surface Active Agents and Detergents)

FAN.CNT 2

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|--|------|----------|------------------|----------|
| PI   | DE 19650151  | A1   | 19980604 | DE 1996-19650151 | 19961203 |
|      | WO 9824758   | A2   | 19980611 | WO 1997-EP6750   | 19971202 |
|      | WO 9824758   | A3   | 19980820 |                  |          |
|      | W: BR, CN, ID, JP, KR, US  |      |          |                  |          |
|      | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |          |
|      | EP 946498  | A2   | 19991006 | EP 1997-952862   | 19971202 |
|      | R: DE, FR, GB, IT  |      |          |                  |          |
|      | US 6034257   | A    | 20000307 | US 1999-308669   | 19990603 |
| PRAI | DE 1996-19650107   |      | 19961203 |                  |          |

DE 1996-19650151 19961203  
 WO 1997-EP6750 19971202  
 OS MARPAT 129:55769  
 AB R1CONR2CHR3CHR4O(CHR5CHR6O)nH [R1 = C5-25 alk(en)yl; R2 = H, C1-20  
 (O-interrupted) alkyl; R3-R6 = H; R3 .noteq. R4 = Me; R5 .noteq. R6 = Me],  
 useful as nonionic surfactants or emulsifiers, are manufd. by (1) reacting  
 glycerides with (ethanol)amines, (2) acidifying the mixts. with aq. acids  
 and sepg. the glycerin-contg. aq. phase from fatty amide-contg. org.  
 phase, and (3) ethoxylating and/or propoxylating and/or butoxylating the  
 fatty amides. For example, a mixt. of 348.9 g MeNHCH2CH2OH and 27.0 g  
 NaOMe (30% in MeOH) was treated over 80 min at 80.degree. with 1305.0 g  
 rapeseed oil, the mixt. was stirred for 15 min, dild. with 1000 mL H2O,  
 heating was discontinued and the whole acidified with HCl to pH 3-4 and  
 the phases sepd. The org. phase was washed twice with 750 mL H2O and  
 dewatered by distn. in vacuo to give rapeseed oil N-methylethanolamide as  
 a viscous, brown oil. This (426.5 g) was combined with 9.0 g NaOMe, dried  
 for 2 h at 120.degree./16 mbar and ethoxylated at that temp. with 132.0 g  
 ethylene oxide (EO) (max pressure 3.5 bar), cooled to 80.degree. and  
 evacuated to give viscous, brown oil free from EO, having OH no. 95 mg  
 KOH/g and contg. 3.3% polyethylene glycol.

ST glycerin sepn fatty amide manuf; glyceride amidation glycerol sepn fatty  
 amide; rapeseed oil amidation methylethanolamine glycerol sepn;  
 ethoxylation rapeseed oil N methylethanolamide

IT Detergents  
 (cleaning agents; manuf. of ethoxylated amides for use in)

IT Polyoxyalkylenes, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (ethers with fatty amides; manuf. of ethoxylated amides and their use  
 in **washing** and cleaning products and toiletries)

IT Coco amides  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (ethoxylated; manuf. of ethoxylated amides as surfactants and their use  
 in **washing** and cleaning products and toiletries)

IT Polyoxyalkylenes, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (fatty amido group-terminated, rapeseed-oil, ethoxylated; manuf. of  
 ethoxylated amides and their use in **washing** and cleaning  
 products and toiletries)

IT Amides, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (fatty, alkoxylated, rapeseed-oil, ethoxylated; manuf. of ethoxylated  
 amides and their use in **washing** and cleaning products and  
 toiletries)

IT Skin cleansers  
 (manuf. of ethoxylated amides and their use in **washing** and  
 cleaning products and toiletries)

IT Emulsifying agents  
 (manuf. of ethoxylated amides and their use in **washing** and  
 cleaning products and toiletries as)

IT Nonionic surfactants  
 (manuf. of ethoxylated amides as surfactants and their use in  
**washing** and cleaning products and toiletries)

IT Glycerides, processes  
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC  
 (Process)  
 (manuf. of ethoxylated amides by aminolysis of **glycerides** and  
 sepn. of)

IT Lubricants  
 (manuf. of ethoxylated amides for use as)

IT Laundry detergents  
 (manuf. of ethoxylated amides for use in)

IT 124-41-4, Sodium methoxide  
 RL: CAT (Catalyst use); USES (Uses)  
 (amidation and ethoxylation catalyst; manuf. of ethoxylated amides and  
 their use in **washing** and cleaning products and toiletries)

IT 74-89-5DP, Methylamine, amides with rapeseed oil **fatty**  
**acids**, ethoxylated 109-83-1DP, N-Methylethanolamine, amides with

rapeseed oil **fatty acids**, ethoxylated 111-75-1DP,  
N-Butylethanolamine, amides with coconut oil **fatty acids**  
, ethoxylated 25322-68-3DP, Polyethylene glycol, ethers with fatty  
amides

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manuf. of ethoxylated amides and their use in **washing** and  
cleaning products and toiletries)

IT 56-81-5, **Glycerol**, processes

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical  
process); FORM (Formation, nonpreparative); PROC (Process)  
(manuf. of ethoxylated amides by aminolysis of **glycerides** and  
sepn. of)

IT 56-81-5, **Glycerol**, processes

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical  
process); FORM (Formation, nonpreparative); PROC (Process)  
(manuf. of ethoxylated amides by aminolysis of **glycerides** and  
sepn. of)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH

HO=CH<sub>2</sub>-CH=CH<sub>2</sub>-OH

L35 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1997:443360 HCAPLUS

DN 127:67720

TI Liquid dishwashing detergents with good detergency in hard water

IN Brumbaugh, Ernest H.

PA Amway Corporation, USA

SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C11D

CC 46-6 (**Surface Active Agents** and  
**Detergents**)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | WO 9718284   | A2   | 19970522 | WO 1996-US18286 | 19961112 |
|    | WO 9718284   | A3   | 19970619 |                 |          |
|    | W: AU, BR, CA, CN, JP, KR, MX  |      |          |                 |          |
|    | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE       |      |          |                 |          |
|    | AU 9677331   | A1   | 19970605 | AU 1996-77331   | 19961112 |
|    | AU 705326  | B2   | 19990520 |                 |          |
|    | CN 1207760   | A    | 19990210 | CN 1996-199580  | 19961112 |
|    | EP 906388  | A2   | 19990407 | EP 1996-940452  | 19961112 |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, FI |      |          |                 |          |
|    | BR 9612494   | A    | 19991123 | BR 1996-12494   | 19961112 |
|    | JP 2000502118  | T2   | 20000222 | JP 1997-519078  | 19961112 |
|    | US 5998355   | A    | 19991207 | US 1997-976900  | 19971124 |

PRAI US 1995-559552 19951116

WO 1996-US18286 19961112

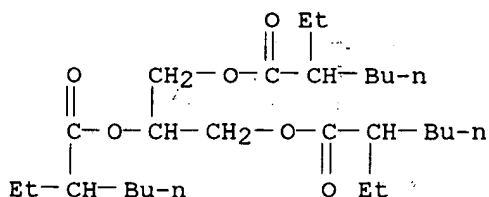
OS MARPAT 127:67720

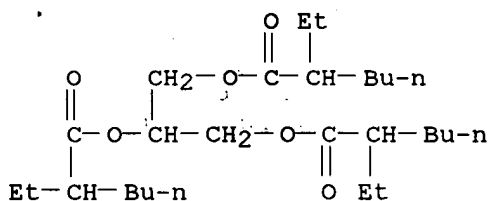
AB The title detergents are prepd. that exhibit increased viscosity, better  
dissoln. rate and surprisingly improved cleaning performance in hard  
water, comprising from about 1-90% of an anionic surfactant and from about  
1-30% of a solvent hydrotrope selected from the group consisting of  
alkoxylated glycerides, alkoxylated glycerines, esters of alkoxylated  
glycerines, alkoxylated fatty acids, esters of glycerin, polyglycerol  
esters and combinations thereof.

ST liq dishwashing detergent hard water tolerance; anionic surfactant



- dishwashing detergent; alkoxylated glycerin dishwashing detergent; glyceride alkoxylated dishwashing detergent; fatty acid alkoxylated dishwashing detergent; polyglycerol ester dishwashing detergent; hydrotrope solvent dishwashing detergent; viscosity improvement dishwashing detergent
- IT **Fatty acids**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(alkoxylated; liq. **dishwashing** detergents with good detergency in hard water)
- IT **Glycerides**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(alkoxylates for hydrotropes/solvents; liq. **dishwashing** detergents with good detergency in hard water)
- IT **Coco fatty acids**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrotropes from alkoxylated esters; liq. **dishwashing** detergents with good detergency in hard water)
- IT **Esters**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrotropes from alkoxylated **glycerol-** or **glyceride**-based; liq. **dishwashing** detergents with good detergency in hard water)
- IT **Polyoxyalkylenes**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrotropes/solvents; liq. **dishwashing** detergents with good detergency in hard water)
- IT **Dishwashing** detergents  
Hydrotropes  
Solvents  
(liq. **dishwashing** detergents with good detergency in hard water)
- IT 107-41-5, Hexylene glycol **7360-38-5, Glycerol** tris(2-ethyl hexanoate) 9004-81-3, Polyethylene glycol laurate **9007-48-1**, Polyglyceryl oleate 25322-69-4, Polypropylene glycol **31694-55-0**, Glycereth 26 **31694-55-0D**, Polyethylene glycol glyceryl ether, cocoate **83138-62-9**, Polyglycerol isostearate **191278-56-5** **191358-52-8**, Polyethylene glycol **glycerol** laurate oleate  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrotropes/solvents; liq. **dishwashing** detergents with good detergency in hard water)
- IT **7360-38-5, Glycerol** tris(2-ethyl hexanoate) **9007-48-1**, Polyglyceryl oleate **31694-55-0**, Glycereth 26 **31694-55-0D**, Polyethylene glycol glyceryl ether, cocoate **83138-62-9**, Polyglycerol isostearate **191278-56-5** **191358-52-8**, Polyethylene glycol **glycerol** laurate oleate  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(hydrotropes/solvents; liq. **dishwashing** detergents with good detergency in hard water)
- RN 7360-38-5 HCAPLUS
- CN Hexanoic acid, 2-ethyl-, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)





RN 9007-48-1 HCAPLUS

CN 1,2,3-Propanetriol, homopolymer, (9Z)-9-octadecenoate (9CI) (CA INDEX NAME)

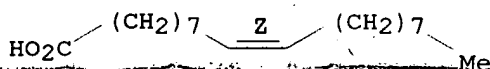
CM 1

CRN 112-80-1

CMF C18 H34 O2

CDES 2:Z

Double bond geometry as shown.



CM 2

CRN 25618-55-7

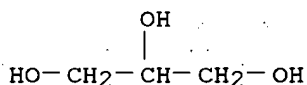
CMF (C3 H8 O3)X

CCI PMS

CM 3

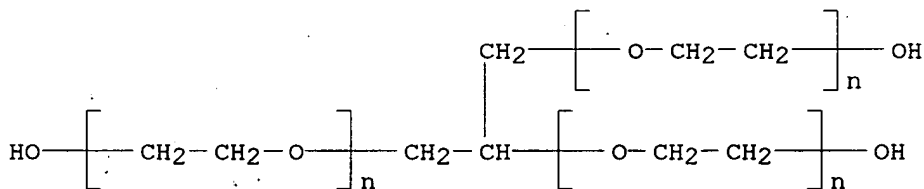
CRN 56-81-5

CMF C3 H8 O3



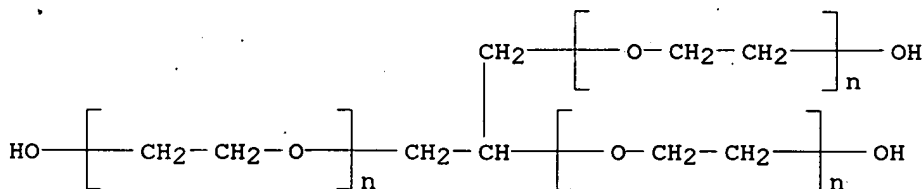
RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



RN 83138-62-9 HCAPLUS

CN 1,2,3-Propanetriol, homopolymer, isooctadecanoate (9CI) (CA INDEX NAME)

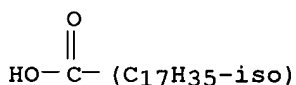
CM 1

CRN 30399-84-9

CMF C18 H36 O2

CCI IDS

CDES 8:ID,ISO



CM 2

CRN 25618-55-7

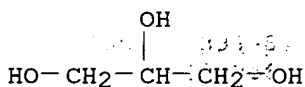
CMF (C3 H8 O3)x.

CCI PMS

CM 3

CRN 56-81-5

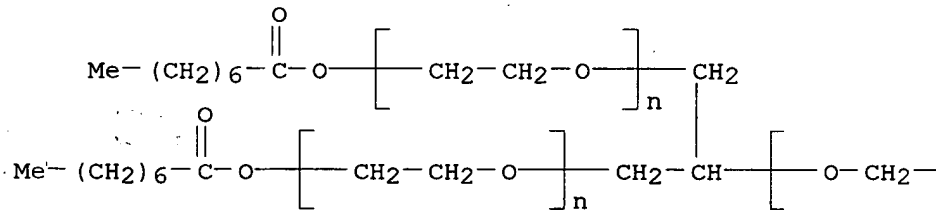
CMF C3 H8 O3

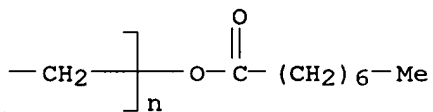


RN 191278-56-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-[(1-oxooctyl)oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A





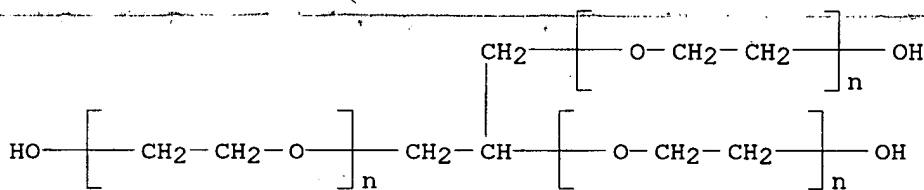
RN 191358-52-8 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha.', .alpha.''-1,2,3-  
 propanetriyltris[.omega.-hydroxy-, dodecanoate (9Z)-9-octadecenoate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 31694-55-0

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C3 H8 O3

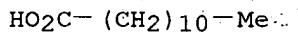
CCI PMS



CM 2

CRN 143-07-7

CMF C12 H24 O2



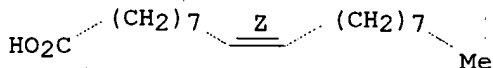
CM 3

CRN 112-80-1

CMF C18 H34 O2

CDES 2:Z

Double bond geometry as shown.



L35 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1996:707958 HCAPLUS  
 DN 125:332359  
 TI Low-viscosity aqueous dispersion concentrates of opacifiers  
 IN Baumoeller, Guido; Wadle, Armin; Ansmann, Achim; Tesmann, Holger;  
 Foerster, Thomas  
 PA Henkel KGaA, Germany  
 SO Ger. Offen., 7 pp.  
 CODEN: GWXXBX  
 DT Patent

LA German  
 IC ICM B01F017-00  
 ICS B01F017-56; B01F017-34; B01F017-22; C11D001-66; C11D003-20;  
 C11D003-18; A61K007-075; A61K007-50  
 ICA B01F017-02; B01F017-12; B01F017-08; B01F017-04; B01F017-10; B01F017-42;  
 B01F017-28; B01F017-30; B01F017-14; B01F017-18; C07C069-22  
 CC 46-4 (**Surface Active Agents** and  
**Detergents**)  
 Section cross-reference(s): 45, 62

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|--|------|----------|------------------|----------|
| PI | DE 19511572  | A1   | 19961002 | DE 1995-19511572 | 19950329 |
|    | DE 19511572  | C2   | 19980226 |                  |          |
|    | WO 9630476   | A1   | 19961003 | WO 1996-EP1197   | 19960320 |
|    | W: JP, US  |      |          |                  |          |
|    | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |          |
|    | EP 817826  | A1   | 19980114 | EP 1996-908084   | 19960320 |
|    | EP 817826  | B1   | 20000524 |                  |          |
|    | R: DE, ES, FR, GB, IT, FI  |      |          |                  |          |
|    | JP 11502879  | T2   | 19990309 | JP 1996-528883   | 19960320 |
|    | ES 2147922   | T3   | 20001001 | ES 1996-908084   | 19960320 |
|    | US 5888487   | A    | 19990330 | US 1997-930570   | 19971031 |

PRAI DE 1995-19511572, 19950329

WO 1996-EP1197 19960320

OS MARPAT 125:332359

AB Wax-based title concs. with solids content 40-60%, useful for dishwashing  
 detergents and shampoos, contain emulsifiers based on .gtoreq.1  
 hydrophilic nonionic surfactant with HLB value >10 and .gtoreq.1  
 hydrophobic nonionic surfactant with HLB value <10.

ST wax based opacifier conc nonionic emulsifier; shampoo opacifier conc low  
 viscosity; dishwashing detergent opacifier conc low viscosity; aq  
 dispersion conc wax based opacifier

IT **Glycerides**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (hardened, opacifiers; low-viscosity opacifier aq. dispersion concs.  
 contg. nonionic emulsifiers for **dishwashing** detergents and  
 shampoos)

IT Opacifiers

(low-viscosity opacifier aq. dispersion concs. contg. nonionic  
 emulsifiers for **dishwashing** detergents and shampoos)

IT Paraffin waxes and Hydrocarbon waxes, uses

Waxes and Waxy substances

RL: TEM (Technical or engineered material use); USES (Uses)  
 (opacifiers; low-viscosity opacifier aq. dispersion concs. contg.  
 nonionic emulsifiers for **dishwashing** detergents and shampoos)

IT Alcohols, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (C16-18, opacifiers; low-viscosity opacifier aq. dispersion concs.  
 contg. nonionic emulsifiers for **dishwashing** detergents and  
 shampoos)

IT **Fatty acids**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (esters, with glycols, opacifiers; low-viscosity opacifier aq.  
 dispersion concs. contg. nonionic emulsifiers for **dishwashing**  
 detergents and shampoos)

IT **Glycerides**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (mono-, opacifiers; low-viscosity opacifier aq. dispersion concs.  
 contg. nonionic emulsifiers for **dishwashing** detergents and  
 shampoos)

IT Emulsifying agents

(nonionic, low-viscosity opacifier aq. dispersion concs. contg.  
 nonionic emulsifiers for **dishwashing** detergents and shampoos)

IT 627-83-8, Ethylene glycol distearate

RL: TEM (Technical or engineered material use); USES (Uses)  
 (Cutina K 2-2747, opacifier; low-viscosity opacifier aq. dispersion

concs. contg. nonionic emulsifiers for **dishwashing** detergents and shampoos)

IT 27215-38-9, Monomuls 90L12 183023-68-9, Plantaren APG 1200  
RL: NUU (Nonbiological use, unclassified); USES (Uses)  
(emulsifier; low-viscosity opacifier aq. dispersion concs. contg.  
nonionic emulsifiers for **dishwashing** detergents and shampoos)  
IT 25322-68-3D, C16-18 **fatty acid** esters  
RL: TEM (Technical or engineered material use); USES (Uses)  
(opacifiers; low-viscosity opacifier aq. dispersion concs. contg.  
nonionic emulsifiers for **dishwashing** detergents and shampoos)  
IT 27215-38-9, Monomuls 90L12  
RL: NUU (Nonbiological use, unclassified); USES (Uses)  
(emulsifier; low-viscosity opacifier aq. dispersion concs. contg.  
nonionic emulsifiers for **dishwashing** detergents and shampoos)  
RN 27215-38-9 HCAPLUS  
CN Dodecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 143-07-7

CMF C12 H24 O2

~~HO<sub>2</sub>C= (CH<sub>2</sub>)<sub>10</sub>-Me~~

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L35 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:681962 HCAPLUS

DN 125:332409

TI Microemulsion all-purpose liquid cleaning compositions

IN Thomas, Barbara; Adamy, Steven; Broze, Guy; Mehreteab, Ammanuel; Bala, Frank, Jr.; Mondin, Myriam; Loth, Myriam

PA Colgate-Palmolive Co., USA

SO U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 192,902, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C11D001-722

ICS C11D001-83

NCL 510365000

CC 46-6 (**Surface Active Agents and Detergents**)

FAN.CNT 4

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | US 5571459  | A    | 19961105 | US 1994-350576  | 19941207 |
|    | AU 9511489  | A1   | 19950817 | AU 1995-11489   | 19950131 |
|    | AU 680076   | B2   | 19970717 |                 |          |
|    | CA 2141926  | AA   | 19950808 | CA 1995-2141926 | 19950206 |
|    | EP 668346   | A1   | 19950823 | EP 1995-300717  | 19950206 |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE |      |          |                 |          |
|    | BR 9500451  | A    | 19950926 | BR 1995-451     | 19950206 |
|    | PL 179655   | B1   | 20001031 | PL 1995-307113  | 19950206 |
|    | HU 70071  | A2   | 19950928 | HU 1995-372     | 19950207 |

US 5561106 A 19961001 US1995-515785 19950816  
 PRAI US 1994-192902 19940207  
 US 1994-203125 19940228  
 US 1994-350576 19941207  
 US 1995-384310 19950206

AB The microemulsion compns. which are more friendly to the environment contain an anionic sulfate surfactant, an esterified polyethoxy ether surfactant, a co-surfactant, at least one hydrocarbon, and water, which can comprise the use of a water-insol. odoriferous perfume as the essential hydrocarbon in a proportion sufficient to form a dil. oil in water microemulsion compn. The compns. preferably contain 0.1-8% of an anionic sulfate surfactant, 1-50% of a co-surfactant, 1-20% of an ethoxylated glycerol type compd., 0.4-20% of perfume and the balance being water. A compn. contained Levenol V501/2 2.4, Mg laurylsulfate 3.6, ethylene glycol monohexyl ether 3.0, dodecane 1.0, and deionized water being the balance.

ST microemulsion all purpose cleaning compn; anionic sulfate surfactant cleaning compn

IT Tiles

(Formica, greasy; microemulsion all-purpose liq. cleaning compns.)

IT Stains

(bath; microemulsion all-purpose liq. cleaning compns.)

IT Perfumes

(microemulsion all-purpose liq. cleaning compns.)

IT Grease

(removal of; microemulsion all-purpose liq. cleaning compns.)

IT Surfactants

(anionic, sulfates; microemulsion all-purpose liq. cleaning compns.)

IT Detergents

(cleaning compns., microemulsion all-purpose liq. cleaning compns.)

IT Emulsions

(micro-, microemulsion all-purpose liq. cleaning compns.)

IT Fatty acids, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (tallow, esters with polyethylene glycol ether with glycerol (3:1), microemulsion all-purpose liq. cleaning compns.)

IT 112-25-4, Ethylene glycol monohexyl ether 112-40-3, Dodecane 3097-08-3, Magnesium laurylsulfate 7732-18-5, Water, uses 31694-55-0

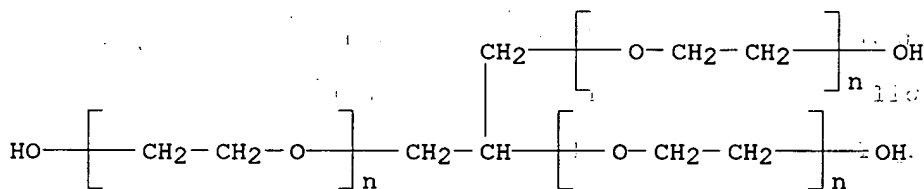
RL: TEM (Technical or engineered material use); USES (Uses)  
 (microemulsion all-purpose liq. cleaning compns.)

IT 31694-55-0

RL: TEM (Technical or engineered material use); USES (Uses)  
 (microemulsion all-purpose liq. cleaning compns.)

RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha.', .alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L35 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:225984 HCAPLUS

DN 124:346614

TI Dishwashing detergent compositions useful for food

IN Isobe, Kenji; Ogawa, Tooru; Mori, Terutaka

PA Lion Corp, Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C11D001-68  
 ICS C11D003-06; C11D003-20; C11D003-386  
 CC 46-6 (**Surface Active Agents and Detergents**)

Section cross-reference(s): 7, 17

FAN.CNT 1

|      | PATENT NO.        | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-------------------|------|----------|-----------------|----------|
| PI   | JP 08012995       | A2   | 19960116 | JP 1995-129388  | 19950428 |
| PRAI | JP 1994-114515    |      | 19940429 |                 |          |
| OS   | MARPAT 124:346614 |      |          |                 |          |

AB Title compns., useful for removal of microorganisms from food, contain (A)  $R_1CO_2CH_2CH(OZ_1)CH_2OZ_2$  [ $R_1 = C_7-17$  alkyl, alkenyl;  $gtoreq.1$  of  $Z_1$  and  $Z_2$  is polycarboxylic acid (salt) and the other can be H] and/or (B)  $gtoreq.1$  of (a) C8-18 fatty acid esters of glycerin, polyglycerin, sucrose, propylene glycol, sorbitan, and polyoxyethylene sorbitan ether and (b) food- or natural product-derived lecithin and enzyme-treated lecithin and (C) hydrolases. Thus, soybeans were washed with an aq. 0.3% mixt. of Na glycerin succinate monolaurate 20,  $Na_2SO_4$  75, and Papain FL-3 (papain) 1 part to show effective removal of microorganisms.

ST detergent microorganism removal food; polycarboxylic acid monoglyceride ester detergent; hydrolase blend microorganism removal food; fatty acid polyol ester detergent; lecithin blend microorganism removal food

IT Detergents  
 Food

(dishwashing detergents contg. polycarboxylic acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)

IT 9001-92-7, Protease

RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Alkalase 2.4LFG; dishwashing detergents contg. polycarboxylic acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)

IT 9012-54-8, Cellulase

RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Cellulase 2000 CUN/g; dishwashing detergents contg. polycarboxylic acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)

IT 34406-66-1, Decaglycerin monolaurate

RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(Decaglyn 1-L; dishwashing detergents contg. polycarboxylic acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)

IT 9074-98-0, .beta.-Glucanase

RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Glucanase X; dishwashing detergents contg. polycarboxylic acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)

IT 9001-62-1, Lipase

RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Lipozyme 10.000L; dishwashing detergents contg. polycarboxylic acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)

IT 9001-73-4, Papain

RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Papain FL-3; dishwashing detergents contg. polycarboxylic



**acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 IT 9032-75-1, Pectinase  
 RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
 (Pectinex; **dishwashing** detergents contg. polycarboxylic **acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 IT 9000-90-2, .alpha.-Amylase  
 RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
 (Tenase 1200; **dishwashing** detergents contg. polycarboxylic **acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 IT 27194-74-7P, Propylene glycol monolaurate  
 RL: FFD (Food or feed use); IMF (Industrial manufacture); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (**dishwashing** detergents contg. polycarboxylic **acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 IT 9033-06-1, Glucosidase 142462-61-1, Viscozyme 120L 150977-36-9, Bromelain  
 RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
 (**dishwashing** detergents contg. polycarboxylic **acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 IT 1337-30-0, Rikemal L 250A 7664-38-2D, Phosphoric acid, esters 9005-67-8, Nikkol TS 10 26402-22-2, Poem M-200 52683-61-1, Ryoto Sugar Ester O-1570 102604-15-9 145053-71-0 145053-72-1 146701-91-9 151854-08-9 160936-20-9, Lecinol LL-20 176199-56-7  
 RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (**dishwashing** detergents contg. polycarboxylic **acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 IT 26402-22-2, Poem M-200 102604-15-9 145053-71-0 145053-72-1 146701-91-9 151854-08-9 176199-56-7  
 RL: FFD (Food or feed use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (**dishwashing** detergents contg. polycarboxylic **acid monoglyceride esters, polyol fatty acid esters and/or lecithins and hydrolase useful for food)**  
 RN 26402-22-2 HCAPLUS  
 CN Decanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 334-48-5

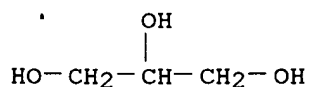
CMF C10 H20 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>8</sub>-Me

CM 2

CRN 56-81-5

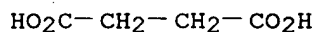
CMF C3 H8 O3



RN 102604-15-9 HCAPLUS  
 CN Butanedioic acid, monoester with 1,2,3-propanetriol monohexadecanoate  
 (9CI) (CA INDEX NAME)

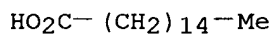
CM 1

CRN 110-15-6  
 CMF C4 H6 O4



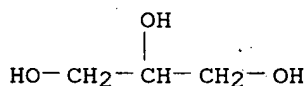
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CRN 57-10-3  
 CMF C16 H32 O2



CM 3

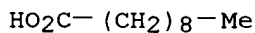
CRN 56-81-5  
 CMF C3 H8 O3



RN 145053-71-0 HCAPLUS  
 CN Butanedioic acid, ester with 1,2,3-propanetriol monodecanoate, sodium salt  
 (9CI) (CA INDEX NAME)

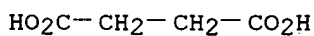
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CRN 334-48-5  
 CMF C10 H20 O2



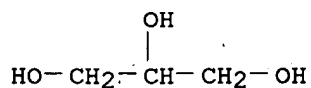
CM 2

CRN 110-15-6  
 CMF C4 H6 O4



CM 3

CRN 56-81-5



RN 145053-72-1 HCAPLUS  
CN Butanedioic acid, ester with 1,2,3-propanetriol monododecanoate, sodium salt (9CI) (CA INDEX NAME)

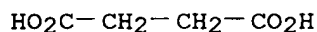
CM 1

CRN 143-07-7  
CMF C12 H24 O2



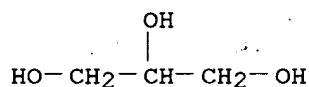
CM 2

CRN 110-15-6  
CMF C4 H6 O4



CM 3

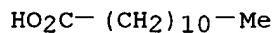
CRN 56-81-5  
CMF C3 H8 O3



RN 146701-91-9 HCAPLUS  
CN Butanedioic acid, ester with 1,2,3-propanetriol monododecanoate (9CI) (CA INDEX NAME)

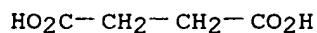
CM 1

CRN 143-07-7  
CMF C12 H24 O2



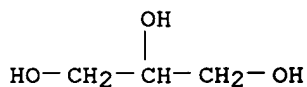
CM 2

CRN 110-15-6  
CMF C4 H6 O4



CM 3

CRN 56-81-5  
CMF C3 H8 O3



RN 151854-08-9 HCAPLUS  
CN Butanedioic acid, ester with 1,2,3-propanetriol monotetradecanoate (9CI)  
(CA INDEX NAME)

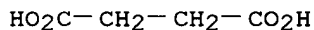
CM 1

CRN 544-63-8  
CMF C14 H28 O2



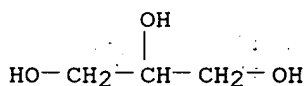
CM 2

CRN 110-15-6  
CMF C4 H6 O4



CM 3

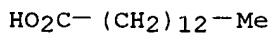
CRN 56-81-5  
CMF C3 H8 O3



RN 176199-56-7 HCAPLUS  
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, ester with 1,2,3-propanetriol  
monotetradecanoate (9CI) (CA INDEX NAME)

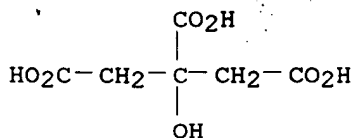
CM 1

CRN 544-63-8  
CMF C14 H28 O2



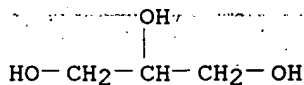
CM 2

CRN 77-92-9  
CMF C6 H8 O7



CM 3

CRN 56-81-5  
CMF C3 H8 O3



L35 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1995:985900 HCAPLUS

DN 124:11418

TI Liquid detergent composition with mildness to skin

IN Erilli, Rita; Adamy, Steven; Mehreteab, Ammanuel; Bala, Frank Jr

PA Colgate-Palmolive Co., USA

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent 1995-09-28

LA English

IC ICM C11D001-825

ICS C11D001-83; C11D001-94

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 4

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | WO 9523204   | A1   | 19950831 | WO 1995-US2162  | 19950227 |
|      | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA, UZ, VN  |      |          |                 |          |
|      | RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |      |          |                 |          |
|      | AU 9519257   | A1   | 19950911 | AU 1995-19257   | 19950227 |
|      | EP 748368  | A1   | 19961218 | EP 1995-911841  | 19950227 |
|      | R: DE, DK, FR, GR, SE  |      |          |                 |          |
| PRAI | US 1994-203125   |      | 19940228 |                 |          |
|      | US 1995-384310   |      | 19950206 |                 |          |
|      | WO 1995-US2162   |      | 19950227 |                 |          |
| AB   | A high-foaming light-duty liq. detergent compn. (e.g., for dishwashing) with good detergency and mildness to skin contains a partially esterified ethoxylated polyhydric alc. and .gtoreq.1 surfactant selected from water-sol. nonionic surfactants, water-sol. foaming anionic surfactants and water-sol. foaming betaine surfactants. A compn. contained Levenol F200 (partial esters of ethoxylated glycerol and coco fatty acids), coco amidopropyl betaine, ethoxylated fatty alcs., Na dodecanesulfonate, water, and additives. |      |          |                 |          |
| ST   | solubilizer fatty ester ethoxylate glycerol detergent; skin mildness detergent ester ethoxylate glycerol; dishwashing liq detergent ester ethoxylate glycerol; liq detergent solubilizer ester ethoxylate glycerol   |      |          |                 |          |
| IT   | Solubilizers (esters of fatty acids and ethoxylated glycerol; in liq. detergent compns. with mildness to skin)   |      |          |                 |          |
| IT   | Detergents (dishwashing, liq., esters of fatty acids   |      |          |                 |          |

and ethoxylated **glycerol** as solubilizers in compns. with mildness to skin)

IT Detergents

(liq., esters of **fatty acids** and ethoxylated

**glycerol** as solubilizers in compns. with mildness to skin)

IT **31694-55-0D**, esters with **fatty acids**

RL: TEM (Technical or engineered material use); USES (Uses)

(solubilizers; in liq. detergent compns. with mildness to skin)

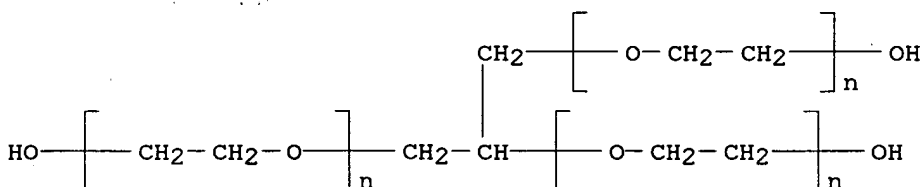
IT **31694-55-0D**, esters with **fatty acids**

RL: TEM (Technical or engineered material use); USES (Uses)

(solubilizers; in liq. detergent compns. with mildness to skin)

RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.,.alpha.'-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L35 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1995:905367 HCAPLUS

DN 123:290538

TI Aqueous composition for cleaning of interior surfaces of dishwashing machines

IN Haerer, Juergen; Burg, Birgit; Jeschke, Peter; Hill, Karlheinz

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C11D001-66

ICS C11D001-825; C11D017-00; C07H015-04

ICA C07C233-18; C07C059-245; C07C059-265; C07C043-11

ICI C11D001-66, C11D003-20, C11D001-72, C11D001-66

CC 46-6 (Surface Active Agents and

Detergents)

FAN.CNT 1

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|----|------------|------|----------|-----------------|----------|
| PI | DE 4401103 | A1   | 19950720 | DE 1994-4401103 | 19940117 |
|    | WO 9519417 | A1   | 19950720 | WO 1995-EP65    | 19950109 |

W: JP, US

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRAI DE 1994-4401103 19940117

OS MARPAT 123:290538

AB The title compn. contains an N-contg. nonionic surfactant (e.g., N-methyl-N-octanoylglucamine), a water-sol. polyhydric alc. (e.g., glycerol), and a water-sol. compd. contg. 2-6 C, gtoreq.1 carboxy group, and, optionally, OH groups (e.g., citric acid) and removes lime deposits, food residues, etc., from metal, plastic, and rubber surfaces in dishwashing machines.

ST glucamide cleaner dishwashing machine; dishwashing machine interior cleaner; citric acid cleaner dishwashing machine; glycerol cleaner dishwashing machine

IT Incrustations

(aq. cleaners for interior surfaces of **dishwashing** machines for removal of)

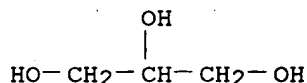
IT **Dishwashing**

(machines; aq. cleaners for interior surfaces of)

IT Detergents

(cleaning compns., liq., for interior surfaces of **dishwashing** machines)

IT **56-81-5, Glycerol**, uses 77-92-9, Citric acid, uses 6284-40-8D, N-Methylglucamine, amides with C6-12 **fatty acids** 9003-11-6D, Ethylene oxide-propylene oxide copolymer, monoalkyl ethers 25322-68-3D, Polyethylene glycol, monoalkyl ethers 85261-20-7, N-Methyl-N-decanoylglucamine 85316-98-9, N-Methyl-N-octanoylglucamine  
RL: TEM (Technical or engineered material use); USES (Uses) (in aq. cleaners for interior surfaces of **dishwashing** machines)  
IT **56-81-5, Glycerol**, uses  
RL: TEM (Technical or engineered material use); USES (Uses) (in aq. cleaners for interior surfaces of **dishwashing** machines)  
RN **56-81-5 HCAPLUS**  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L35 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
AN 1995:878862 HCAPLUS  
DN 123:260467  
TI Solid compositions containing quaternary ammonium compounds with ester groups and showing good dispersibility in water  
IN Wahle, Bernd; Bigorra Llosas, Joaquim; Pi, Rafael; Soler Codina, Antoni; Brau Balaque, Emili; Jansen, Yvonne; Waltenberger, Peter  
PA Henkel KGaA, Germany; Pulcra S.A.  
SO Ger., 5 pp  
CODEN: GWXXAW  
DT Patent  
LA German  
IC ICM C07C219-06  
ICS C07C213-08; C07C069-708; C07C069-734; D06M013-463; B01F017-18  
ICA C07C043-13; C07C043-11; C07C043-178; C07C043-15; C07C211-03; A61K007-075; A61K007-08; A61K007-11; C08G065-32; C09K003-16  
CC 46-5 (**Surface Active Agents and Detergents**)

Section cross-reference(s): 62

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | DE 4339643   | C1   | 19950608 | DE 1993-4339643 | 19931120 |
|      | WO 9514654   | A1   | 19950601 | WO 1994-EP3743  | 19941111 |
|      | W: JP, US  |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
|      | EP 729450  | A1   | 19960904 | EP 1995-901371  | 19941111 |
|      | EP 729450  | B1   | 19980422 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE      |      |          |                 |          |
|      | JP 09505314  | T2   | 19970527 | JP 1994-514790  | 19941111 |
|      | AT 165337  | E    | 19980515 | AT 1995-901371  | 19941111 |
|      | ES 2115346   | T3   | 19980616 | ES 1995-901371  | 19941111 |
|      | US 5783534   | A    | 19980721 | US 1996-648100  | 19960715 |
| PRAI | DE 1993-4339643  |      | 19931120 |                 |          |
|      | WO 1994-EP3743   |      | 19941111 |                 |          |

OS MARPAT 123:260467

AB The title compns., contg. ethoxylated fatty alcs. and partial glycerides, are prepd. for use as fabric softeners, hair conditioners, etc. The product of the esterification of 1 mol triethanolamine with 1.2 mol partially hydrogenated tallow fatty acids was mixed with ethoxylated (40 mol) tallow alc. and glycerol monostearate and quaternized with Me<sub>2</sub>SO<sub>4</sub> to give a waxy solid having a bright color and showing good dispersibility

when mixed (10 g) with 90 g water (pH 3.3).

ST quaternary ammonium ester solid dispersibility water; softener fabric quaternary ammonium ester; hair conditioner quaternary ammonium ester; ethoxylate alc dispersant quaternary ammonium ester; glycerol monostearate dispersant quaternary ammonium ester; stearate glycerol dispersant quaternary ammonium ester

IT Quaternization  
(of triethanolamine **fatty acid** esters in prepn. of solid compns. with dispersibility in water)

IT Dispersing agents  
(partial **glycerides** and ethoxylated alcs.; in solid compns. contg. quaternized triethanolamine **fatty acid** esters with dispersibility in water)

IT Antistatic agents  
Softening agents  
(quaternized triethanolamine **fatty acid** esters, for fabrics; in solid compns. with dispersibility in water)

IT **Hair** preparations  
(conditioners, quaternized triethanolamine **fatty acid** esters; in solid compns. with dispersibility in water)

IT Quaternary ammonium compounds, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(ester group-contg., fabric softeners and **hair** conditioners; in solid compns. with dispersibility in water)

IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fatty, ethoxylated; in solid compns. contg. quaternized triethanolamine **fatty acid** esters with dispersibility in water)

IT 25322-68-3D, Polyethylene glycol, monoalkyl ethers **31566-31-1, Glycerol** monostearate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fabric softeners and **hair** conditioners; in solid compns. contg. quaternized triethanolamine **fatty acid** esters with dispersibility in water)

IT 77-78-1D, Dimethyl sulfate, quaternization products with esters of triethanolamine and **fatty acids** 102-71-6D, Triethanolamine, esters with **fatty acids**, quaternized  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fabric softeners and **hair** conditioners; in solid compns. with dispersibility in water)

IT **31566-31-1, Glycerol** monostearate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fabric softeners and **hair** conditioners; in solid compns. contg. quaternized triethanolamine **fatty acid** esters with dispersibility in water)

RN 31566-31-1 HCAPLUS

CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

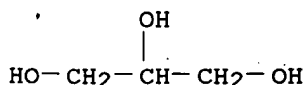
HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 2

CRN 56-81-5

CMF C3 H8 O3





L35 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1995:680659 HCAPLUS  
 DN 123:59622  
 TI Low-foaming rinse aids containing alkoxyated sorbitol fatty acid esters and defoamers  
 IN Baum, Burton M.  
 PA Ecolab Inc., USA  
 SO PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C11D003-22  
 ICS C11D001-00; C11D010-04; C11D001-66; C11D017-00  
 CC 46-4 (**Surface Active Agents** and **Detergents**)

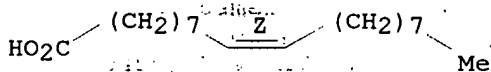
FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9424253  | A1   | 19941027 | WO 1994-US3194  | 19940324 |
|      | W: AU, CA, CN, NZ   |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  |      |          |                 |          |
|      | AU 9465519  | A1   | 19941108 | AU 1994-65519   | 19940324 |
|      | AU 673072   | B2   | 19961024 |                 |          |
| PRAI | US 1993-50531   |      | 19930420 |                 |          |
|      | WO 1994-US3194  |      | 19940324 |                 |          |
| AB   | Food-grade rinse aids for dishwashing contain an alkoxyated sorbitol fatty acid ester, (e.g., Tween 80) and a defoamer (e.g., Na oleate).   |      |          |                 |          |
| ST   | dishwashing rinse aid alkoxyate sorbitol ester; ethoxyate sorbitol ester rinse aid dishwashing; defoamer rinse aid dishwashing; oleate sodium defoamer rinse aid; soap defoamer rinse aid dishwashing |      |          |                 |          |
| IT   | Siloxanes and Silicones, uses   |      |          |                 |          |
|      | Soaps   |      |          |                 |          |
|      | RL: MOA (Modifier or additive use); USES (Uses)   |      |          |                 |          |
|      | (defoamers; in <b>dishwashing</b> rinse aids contg. alkoxyated sorbitol <b>fatty acid</b> esters)   |      |          |                 |          |
| IT   | Antifoaming agents  |      |          |                 |          |
|      | (dishwashing rinse aids contg. alkoxyated sorbitol <b>fatty acid</b> esters and)  |      |          |                 |          |
| IT   | <b>Dishwashing</b>  |      |          |                 |          |
|      | (rinse aids; alkoxyated sorbitol <b>fatty acid</b> ester-defoamer mixts. for)   |      |          |                 |          |
| IT   | Surfactants   |      |          |                 |          |
|      | (nonionic, alkoxyated sorbitol <b>fatty acid</b> esters; <b>dishwashing</b> rinse aids contg. defoamers and)  |      |          |                 |          |
| IT   | 143-19-1, Sodium oleate 9016-00-6, Dimethyl siloxane 25496-72-4, <b>Glycerol</b> monooleate 31566-31-1, <b>Glycerol</b> monostearate 31900-57-9, Dimethylsilanediol polymer                           |      |          |                 |          |
|      | RL: MOA (Modifier or additive use); USES (Uses)   |      |          |                 |          |
|      | (defoamer; in <b>dishwashing</b> rinse aids contg. alkoxyated sorbitol <b>fatty acid</b> esters)  |      |          |                 |          |
| IT   | 9005-65-6, Tween 80   |      |          |                 |          |
|      | RL: TEM (Technical or engineered material use); USES (Uses)   |      |          |                 |          |
|      | (dishwashing rinse aids contg. defoamers and)   |      |          |                 |          |
| IT   | 25496-72-4, <b>Glycerol</b> monooleate 31566-31-1, <b>Glycerol</b> monostearate   |      |          |                 |          |
|      | RL: MOA (Modifier or additive use); USES (Uses)   |      |          |                 |          |
|      | (defoamer; in <b>dishwashing</b> rinse aids contg. alkoxyated sorbitol <b>fatty acid</b> esters)  |      |          |                 |          |
| RN   | 25496-72-4 HCAPLUS  |      |          |                 |          |
| CN   | 9-Octadecenoic acid (9Z)-, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)  |      |          |                 |          |

CM 1

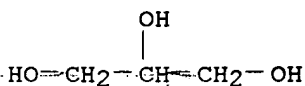
CRN 112-80-1  
CMF C18 H34 O2  
CDES 2:Z

Double bond geometry as shown.



CM 2

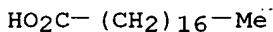
CRN 56-81-5  
CMF C3 H8 O3



RN 31566-31-1 HCAPLUS  
CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

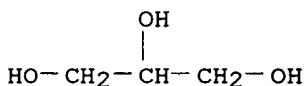
CM 1

CRN 57-11-4  
CMF C18 H36 O2



CM 2

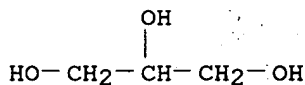
CRN 56-81-5  
CMF C3 H8 O3



L35 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
AN 1994:194549 HCAPLUS  
DN 120:194549  
TI Multipurpose high-efficiency detergent cream without water washing  
IN Xu, Hanlie; Liu, Guanzhong  
PA Peop. Rep. China  
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.  
CODEN: CNXXEV  
DT Patent  
LA Chinese  
IC ICM C11D001-74  
ICS C11D017-00; A61K007-50  
CC 46-6 (Surface Active Agents and Detergents)  
FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | CN 1067263  | A    | 19921223 | CN 1991-107409  | 19910527 |
| AB | Detergents contain surfactants 2-10, bases 0.1-5, thickeners 1-15, skin-protecting agents 0.5-25, antifreeze agents 2-5, preservatives 0.1-2, antioxidants 0.1-2%, perfumes, and H2O. Thus, a detergent contained C16-18 alcs. 5, glycerin monostearate 1.5, stearic acid 4, white oil 12.5, a lauryl sulfate salt 4.5, glycerin 3, Peregol 4, poly(vinyl alc.) 3, H2O 60, light CaCO3 2.5%, and perfume. |      |          |                 |          |
| ST | detergent paste water washing free  |      |          |                 |          |
| IT | Antioxidants<br>(BHT, detergent pastes contg., requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | Lanolin<br>RL: USES (Uses)<br>(skin protecting agents, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | Alcohols, uses<br>RL: USES (Uses)<br>(C16-18, skin protecting agents, detergent pastes contg., requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | Fats and <b>Glyceridic</b> oils<br>RL: USES (Uses)<br>(apricot kernel, skin-protecting agents, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | <b>Fatty acids</b> , esters<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(ethoxylated, surfactants, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | Essential oils<br>RL: USES (Uses)<br>(orange, sweet, skin-protecting agents, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | Detergents<br>(pastes, requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | Paraffin oils<br>RL: USES (Uses)<br>(white oils, skin protecting agents, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | 57-55-6, 1,2-Propanediol, uses<br>RL: USES (Uses)<br>(antifreezes, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | 128-37-0, BHT, miscellaneous 137-40-6, Sodium propionate<br>RL: MSC (Miscellaneous)<br>(antioxidants, detergent pastes contg., requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | 57-13-6, Urea, uses 102-71-6, uses 142-91-6, Isopropyl hexadecanoate 471-34-1, Calcium carbonate, uses<br>RL: USES (Uses)<br>(detergent pastes contg., requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | 94-26-8, Butyl p-hydroxybenzoate 99-76-3 120-47-8<br>RL: USES (Uses)<br>(preservatives, detergent pastes contg., requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | <b>56-81-5</b> , 1,2,3-Propanetriol, miscellaneous 57-11-4, Stearic acid, miscellaneous<br>RL: MSC (Miscellaneous)<br>(skin protecting agents, detergent pastes contg., requiring no water <b>washing</b> )   |      |          |                 |          |
| IT | 75-21-8D, Oxirane, reaction products with lanolin alc. esters 120-40-1, Lauric acid diethanolamide 151-41-7D, Lauryl sulfate, salts 2016-48-0 9005-63-4 16613-87-9 25322-68-3D, Polyethylene glycol, fatty esters<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(surfactants, detergent pastes contg., requiring no water <b>washing</b> )  |      |          |                 |          |
| IT | 9002-89-5, Poly(vinyl alcohol) 9004-32-4 9005-38-3 12619-70-4, Cyclodextrin <b>31566-31-1</b> , Glycerin monostearate   |      |          |                 |          |

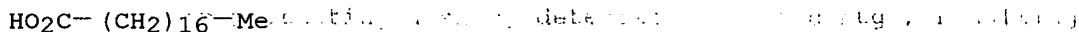
RL: USES (Uses)  
(thickeners, detergent pastes contg., requiring no water  
washing)  
IT 56-81-5, 1,2,3-Propanetriol, miscellaneous  
RL: MSC (Miscellaneous)  
(skin protecting agents, detergent pastes contg., requiring no water  
washing)  
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT 31566-31-1, Glycerin monostearate  
RL: USES (Uses)  
(thickeners, detergent pastes contg., requiring no water  
washing)  
RN 31566-31-1 HCAPLUS  
CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX  
NAME)

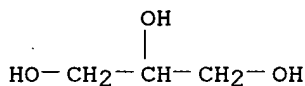
CM 1

CRN 57-11-4  
CMF C18 H36 O2



CM 2

CRN 56-81-5  
CMF C3 H8 O3



L35 ANSWER 17 OF 24. HCAPLUS COPYRIGHT 2001 ACS  
AN 1993:149891 HCAPLUS  
DN 118:149891  
TI Drying agent compositions for automatic dishwashing machines  
IN Itoi, Takashi; Tsutazumi, Junichi; Nakae, Tokuo  
PA Kao Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C11D017-00  
ICS C11D001-68; C11D003-20  
CC 46-6 (Surface Active Agents and  
Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | JP 04306298   | A2   | 19921029 | JP 1991-70752   | 19910403 |
| AB | The title agents providing spot-free, shiny washed dishes contain (A)<br>C8-14 partial fatty acid esters or C18 partial unsatd. fatty acid esters<br>of sucrose, sorbitan, propylene glycol, and (poly)glycerin and (B) C8-14 |      |          |                 |          |

fatty acid or C18 unsatd. fatty acid esters of glycerin succinate, tartarate, or citrate at A/B wt. ratio 97/3 to 10/90. A compn. with good low-temp. storability comprised sucrose caprate 20, glycerin succinate caprate 10, propylene glycol 30, EtOH 10, and water 30 parts.

ST drying aid automatic dishwashing machine; fatty ester drying aid dishwashing; polyol ester drying aid dishwashing

IT Esters, uses  
**Glycerides**, uses  
 RL: USES (Uses)  
 (drying aids, for automatic **dishwashing** machines)

IT Drying agents  
 (ester-based, for automatic **dishwashing** machines)

IT **Fatty acids**, esters  
 RL: USES (Uses)  
 (esters, drying aids, for automatic **dishwashing** machines)

IT 1323-39-3, Propylene glycol stearate 9007-48-1, Polyglycerin oleate 9042-71-1, Sucrose myristate 11140-02-6, Glycerin myristate 11140-04-8, Glycerin caprylate 26266-57-9, Sorbitan palmitate 31835-06-0, Sucrose caprate 37321-62-3, Propylene glycol laurate 51330-20-2 95508-00-2, Sorbitan caprylate 101994-21-2, Glycerin succinate laurate 102036-74-8, Glycerin succinate palmitate 102036-75-9, Glycerin succinate stearate 146701-89-5 146701-92-0 146701-93-1 146701-94-2 146701-95-3

RL: USES (Uses)  
 (drying aids, for automatic **dishwashing** machines)

IT 9007-48-1, Polyglycerin oleate 11140-02-6, Glycerin myristate 11140-04-8, Glycerin caprylate 51330-20-2 101994-21-2, Glycerin succinate laurate 102036-74-8, Glycerin succinate palmitate 102036-75-9, Glycerin succinate stearate 146701-89-5 146701-92-0 146701-93-1 146701-94-2 146701-95-3

RL: USES (Uses)  
 (drying aids, for automatic **dishwashing** machines)

RN 9007-48-1 HCAPLUS

CN 1,2,3-Propanetriol, homopolymer, (9Z)-9-octadecenoate (9CI) (CA INDEX NAME)

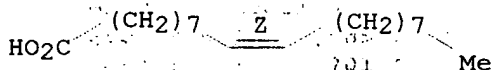
CM 1

CRN 112-80-1

CMF C18 H34 O2

CDES 2:Z

Double bond geometry as shown.



CM 2

CRN 25618-55-7

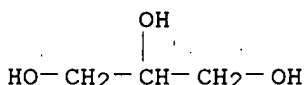
CMF (C3 H8 O3)x

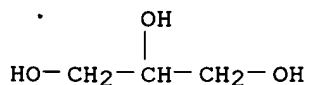
CCI PMS

CM 3

CRN 56-81-5

CMF C3 H8 O3





RN 11140-02-6 HCAPLUS  
CN Tetradecanoic acid, ester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

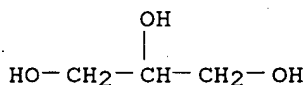
CM 1

CRN 544-63-8  
CMF C14 H28 O2



CM 2

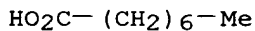
CRN 56-81-5  
CMF C3 H8 O3



RN 11140-04-8 HCAPLUS  
CN Octanoic acid, ester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

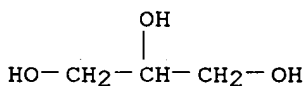
CM 1

CRN 124-07-2  
CMF C8 H16 O2



CM 2

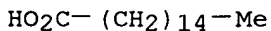
CRN 56-81-5  
CMF C3 H8 O3



RN 51330-20-2 HCAPLUS  
CN 1,2,3-Propanetriol, homopolymer, hexadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 57-10-3  
CMF C16 H32 O2

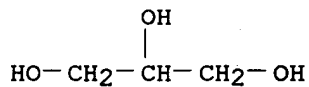


CM 2

CRN 25618-55-7  
CMF (C3 H8 O3) x  
CCI PMS

CM 3

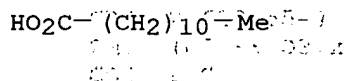
CRN 56-81-5  
CMF C3 H8 O3



RN 101994-21-2 HCAPLUS  
CN Butanedioic acid, ester with 1,2,3-propanetriol dodecanoate (9CI) (CA  
INDEX NAME)

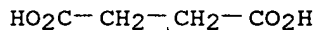
CM 1

CRN 143-07-7  
CMF C12 H24 O2



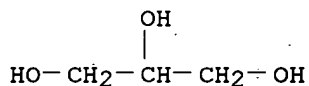
CM 2

CRN 110-15-6  
CMF C4 H6 O4



CM 3

CRN 56-81-5  
CMF C3 H8 O3



RN 102036-74-8 HCAPLUS  
CN Butanedioic acid, ester with 1,2,3-propanetriol hexadecanoate (9CI) (CA  
INDEX NAME)

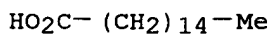
CM 1

CRN 110-15-6  
CMF C4 H6 O4



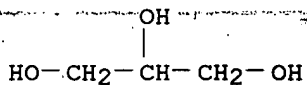
CM 2

CRN 57-10-3  
CMF C16 H32 O2



CM 3

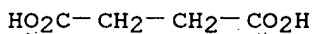
CRN 56-81-5  
CMF C3 H8 O3



RN 102036-75-9 HCAPLUS  
CN Butanedioic acid, ester with 1,2,3-propanetriol octadecanoate (9CI) (CA INDEX NAME)

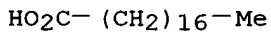
CM 1

CRN 110-15-6  
CMF C4 H6 O4



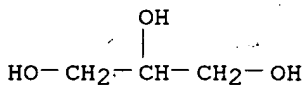
CM 2

CRN 57-11-4  
CMF C18 H36 O2



CM 3

CRN 56-81-5  
CMF C3 H8 O3

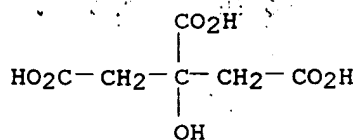


RN 146701-89-5 HCAPLUS  
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, ester with 1,2,3-propanetriol hexadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 77-92-9  
CMF C6 H8 O7





CM 2

CRN 57-10-3

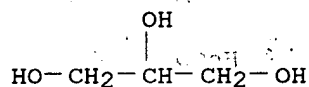
CMF C16 H32 O2



CM 3

CRN 56-81-5

CMF C3 H8 O3



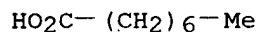
RN 146701-92-0 HCAPLUS

CN Butanedioic acid, ester with 1,2,3-propanetriol octanoate (9CI) (CA INDEX NAME)

CM 1

CRN 124-07-2

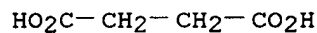
CMF C8 H16 O2



CM 2

CRN 110-15-6

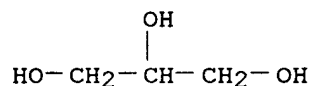
CMF C4 H6 O4



CM 3

CRN 56-81-5

CMF C3 H8 O3

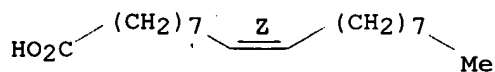


RN 146701-93-1 HCAPLUS

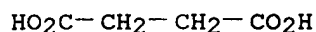
CN Butanedioic acid, ester with 1,2,3-propanetriol (9Z)-9-octadecenoate (9CI) (CA INDEX NAME)

CM 1  
CRN 112-80-1  
CMF C18 H34 O2  
CDES 2:Z

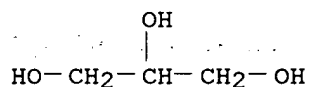
Double bond geometry as shown.



CM 2  
CRN 110-15-6  
CMF C4 H6 O4

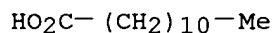


CM 3  
CRN 56-81-5  
CMF C3 H8 O3



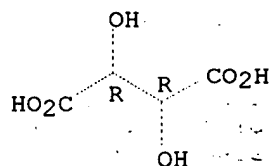
RN 146701-94-2 HCAPLUS  
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, ester with 1,2,3-propanetriol dodecanoate (9CI) (CA INDEX NAME)

CM 1  
CRN 143-07-7  
CMF C12 H24 O2



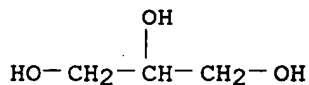
CM 2  
CRN 87-69-4  
CMF C4 H6 O6  
CDES 1:R2:R\*,R\*

Absolute stereochemistry.



CM 3

CRN 56-81-5  
CMF C3 H8 O3

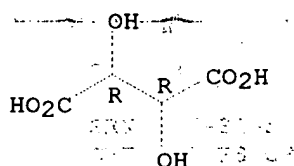


RN 146701-95-3 HCAPLUS  
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, ester with 1,2,3-propanetriol hexadecanoate (9CI) (CA INDEX NAME)

CM 1

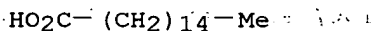
CRN 87-69-4  
CMF C4 H6 O6  
CDES 1:R2:R\*,R\*

Absolute stereochemistry.



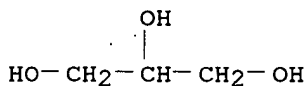
CM 2

CRN 57-10-3  
CMF C16 H32 O2



CM 3

CRN 56-81-5  
CMF C3 H8 O3



L35 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
AN 1993:126997 HCAPLUS  
DN 118:126997  
TI Mixtures of fatty acid amides and esters as foam stabilizers  
IN Smidrkal, Jan; Krob, Vaclav; Klecan, Vaclav; Smidrkalova, Eva; Korinek, Jaroslav  
PA Czech.  
SO Czech., 4 pp.  
CODEN: CZXXA9  
DT Patent  
LA Czech  
IC ICM C11D001-46  
ICA C11D001-52; C11D003-32

CQ 46-4 (Surface Active Agents and Detergents)

Section cross-reference(s): 62

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | CS 273737   | B1   | 19910411 | CS 1988-6489    | 19880930 |
| AB | Mixts. of C8-22 fatty acid amides and esters in a resp. wt. ratio 100:(2-50) are claimed as foam stabilizers for bath prepn., hair shampoos, liq. soaps, and detergents. The amide component comprises mono- or diethanolamides or their 20:(1-10) resp. mixts. and ester component comprises dihydroxypropyl monoesters, hydroxypropyl diesters, or/and (ethanol)aminoethyl esters of the above acids. Thus, to a liq. soap formulation contg. triethylammonium laurylsulfate 8, lauramidopropylbetaine 2, stearoyl ethylene glycol 2, distearoyl ethylene glycol 1, coconut oil sucroglyceride 1%, dye, and fragrance in H2O, was added 2% foam stabilizer comprising a synergistic mixt. of hydrogenated rapeseed oil fatty acid diethanolamides 72, ethanolamides 8, ethanolaminoethyl esters 12, and diethanolaminoethyl esters 8. The foam stability of the latter formulation after 10 min was 170 mm, vs. 152 mm without stabilizer and 162 mm with coco fatty acid diethanolamides as ref. foam stabilizers. |      |          |                 |          |
| ST | foam stabilizer liq soap; fatty amide ester foam stabilizer; rapeseed fatty diethanolamide foam stabilizer; hydroxypropyl ester rapeseed foam stabilizer; ethylaminoethyl ester coco foam stabilizer  |      |          |                 |          |
| IT | Shampoos<br>(foam stabilizers in, mixts. of <b>fatty acid</b> esters and amides as)   |      |          |                 |          |
| IT | Stabilizing agents<br>(for foams, mixts. of <b>fatty acid</b> esters and amides as)   |      |          |                 |          |
| IT | Foams<br>(stabilizers for, mixts. of <b>fatty acid</b> esters and amides as)  |      |          |                 |          |
| IT | Amides, uses<br>RL: USES (Uses)<br>(C8-22, N,N-bis(hydroxyethyl), <b>fatty acid</b> esters and, foam stabilizers for soaps, shampoos, and detergents)   |      |          |                 |          |
| IT | Amides, uses<br>RL: USES (Uses)<br>(C8-22, N-(hydroxyethyl), <b>fatty acid</b> esters and, foam stabilizers for soaps, shampoos, and detergents)  |      |          |                 |          |
| IT | <b>Fatty acids</b> , esters<br>RL: USES (Uses)<br>(coco, esters, with diethanolaminoethane, foam stabilizer mixts. contg., for soaps, shampoos, and detergents)   |      |          |                 |          |
| IT | Amides, uses<br>RL: USES (Uses)<br>(coco, N,N-bis(hydroxyethyl), foam stabilizer mixts. contg., for soaps, shampoos, and detergents)  |      |          |                 |          |
| IT | <b>Bath preparations</b><br>(foams, stabilizers for, mixts. of <b>fatty acid</b> esters and amides as)  |      |          |                 |          |
| IT | Soaps<br>RL: USES (Uses)<br>(liq., foam stabilizers in, mixts. of <b>fatty acid</b> esters and amides as)   |      |          |                 |          |
| IT | <b>Glycerides</b> , uses<br>RL: USES (Uses)<br>(mixed mono- and di-, C8-22, foam stabilizers contg. <b>fatty acid</b> amides and, for soaps, shampoos, and detergents)  |      |          |                 |          |
| IT | <b>Glycerides</b> , uses<br>RL: USES (Uses)<br>(rape-oil mono-, hydrogenated, foam stabilizer mixts. contg., for soaps, shampoos, and detergents)   |      |          |                 |          |
| IT | Amides, uses<br>RL: USES (Uses)   |      |          |                 |          |

(rape-oil, hydrogenated, N,N'-bis(hydroxyethyl), foam stabilizer mixts. contg., for soaps, shampoos, and detergents)

IT Amides, uses

RL: USES (Uses)

(rape-oil, hydrogenated, N-(hydroxyethyl), foam stabilizer mixts. contg., for soaps, shampoos, and detergents)

IT 56-81-5, 1,2,3-Propanetriol, uses

RL: USES (Uses)

(foam stabilizer mixt. contg. **fatty acid** amides and esters and, for soaps, shampoos, and detergents)

IT 102-71-6D, Triethanolamine, esters with coco and rapeseed oil

**fatty acids**

RL: USES (Uses)

(foam stabilizer mixt. contg. fatty amides and, for soaps, shampoos, and detergents)

IT 111-42-2D, coco and rape oil **fatty acid** amides and esters

RL: USES (Uses)

(foam stabilizer mixt. contg. **glycerol** and, for soaps, shampoos, and detergents)

IT 56-81-5, 1,2,3-Propanetriol, uses

RL: USES (Uses)

(foam stabilizer mixt. contg. **fatty acid** amides and esters and, for soaps, shampoos, and detergents)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol, (9CI) (CA INDEX NAME)

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L35 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1990:201182 HCAPLUS

DN 112:201182

TI Alkyl glycoside-based acleaning compositions for hard-surfaced articles

IN Saijo, Hiroyuki; Saito, Kozo; Deguchi, Katsuhiko

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C11D017-00

ICS C11D001-68, C11D003-20

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 01304198 | A2   | 19891207 | JP 1988-134887  | 19880601 |
|    | JP 06031401 | B4   | 19940427 |                 |          |

AB Title compns., mild on the skin with good foaming and detergency and useful for dishwashing, comprise 2-200 parts alkyl glycoside-based surfactants and 1 part fatty acid esters of trihydric or higher alcs. Thus, a compn. contg. 18% C9-11-alkyl glucoside and 4% capric acid monoglyceride (I) showed improved foaming and detergency with no chapping of hand compared with a control without I.

ST dishwashing detergent alkyl glucoside surfactant; polyhydric alc ester dishwashing detergent; fatty acid ester dishwashing detergent

IT Glycosides

RL: USES (Uses)

(alkyl, **dishwashing** detergents contg. **fatty acid** polyhydric alc. esters and)

IT Detergents

(cleaning compns., **dishwashing**, contg. alkyl glycosides and

IT **fatty acid polyhydric alc. esters)**  
**Fatty acids, esters**  
 RL: USES (Uses)  
 (esters, of polyhydric alcs. with, **dishwashing** detergents  
 contg. alkyl glycosides and)

IT **Fatty acids, esters**  
 RL: USES (Uses)  
 (esters, with polyhydric alcs., **dishwashing** detergents contg.  
 alkyl glycosides and)

IT **26402-22-2, Capric acid monoglyceride 27215-38-9**  
**, Lauric acid monoglyceride**  
 RL: USES (Uses)  
 (alkyl glycoside-based surfactants contg., detergents for  
**dishwashing**)

IT **50-99-7D, Glucose, C9-13-alkyl derivs.**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (surfactants, contg. **fatty acid** polyhydric alc.  
 esters, detergents for **dishwashing**)

IT **26402-22-2, Capric acid monoglyceride 27215-38-9**  
**, Lauric acid monoglyceride**  
 RL: USES (Uses)  
 (alkyl glycoside-based surfactants contg., detergents for  
**dishwashing**)

RN **26402-22-2 HCAPLUS**

CN **Decanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)**

CM 1

CRN 334-48-5

CMF C10 H20 O2

$\text{HO}_2\text{C}-(\text{CH}_2)_8-\text{Me}$

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH

$\text{HO}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{OH}$

RN **27215-38-9 HCAPLUS**

CN **Dodecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)**

CM 1

CRN 143-07-7

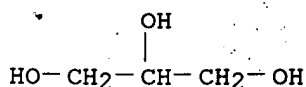
CMF C12 H24 O2

$\text{HO}_2\text{C}-(\text{CH}_2)_{10}-\text{Me}$

CM 2

CRN 56-81-5

CMF C3 H8 O3



L35 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1988:206728 HCAPLUS

DN 108:206728

TI Detergent compositions containing abrasives

IN Deguchi, Katsuhiko; Saijo, Hiroyuki

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

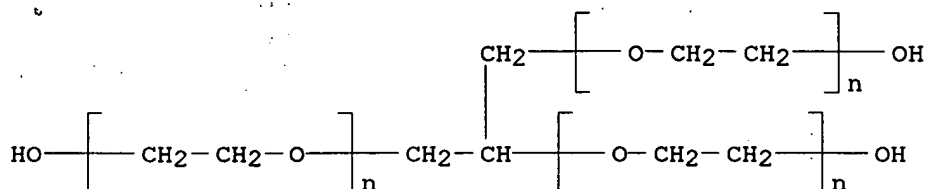
IC ICM C11D010-02

ICI C11D010-02, C11D001-29, C11D001-22, C11D001-14, C11D001-75, C11D001-52, C11D003-14, C11D001-722

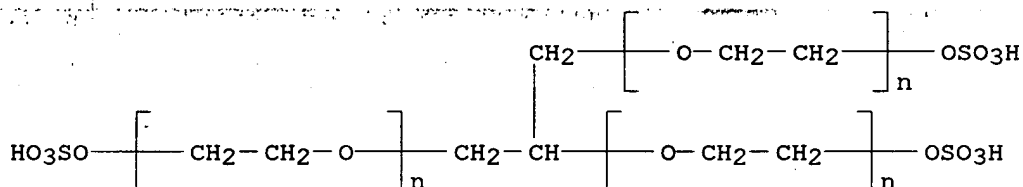
CC 46-6 (**Surface Active Agents and Detergents**)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | JP 63017999  | A2   | 19880125 | JP 1986-161197  | 19860709 |
|    | JP 04041717  | B4   | 19920709 |                 |          |
| AB | The title compns. with good dispersion stability (storability) and mildness to hands contain anionic surfactant(s) chosen from polyoxyethylene alkyl ether sulfate salt, alkylbenzenesulfonate salt, .alpha.-olefin sulfonate salt, and alkane sulfonate 3-25, mono-linear-alkyl tertiary amine oxide 1-10, fatty acid alkanolamide 1-10, alkoxyated polyol and/or its sulfate ester salt 0.1-10, and water-insol abrasive (Mohs hardness 2-8, av. diam. 1-100 .mu.) at pH 4.0-6.5. A typical compn. (pH 5) for dishwashing comprised polyoxyethylene lauryl ether sulfate Na salt 10, lauryl dimethylamine oxide 4, coco fatty acid diethanolamide 5, polyethylene glycol 2, silica (Mohs hardness 7, and diam. 20 .mu.) 10, and water to 100%. |      |          |                 |          |
| ST | abrasive contg liq detergent mild; silica contg dishwashing detergent mild   |      |          |                 |          |
| IT | Amides, uses and miscellaneous   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (detergents, liq., <b>dishwashing</b> , contg. abrasives, mild)  |      |          |                 |          |
| IT | Abrasives  |      |          |                 |          |
|    | (silica, in liq. <b>dishwashing</b> detergents, mild)  |      |          |                 |          |
| IT | Detergents   |      |          |                 |          |
|    | (d <b>ishwashing</b> , liq., contg. abrasives, storable, mild)   |      |          |                 |          |
| IT | Amines, oxides   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (N-oxides, detergents, liq., <b>dishwashing</b> , contg. abrasives, mild)  |      |          |                 |          |
| IT | 7631-86-9, uses and miscellaneous  |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (abrasives, liq. <b>dishwashing</b> detergents contg. mild)  |      |          |                 |          |
| IT | 111-42-2D, coco <b>fatty acid</b> amides 1643-20-5, Lauryl dimethylamine oxide 9004-82-4 9038-78-2 25155-30-0 25322-68-3 25322-69-4 <b>31694-55-0</b> , Polyethylene glycol <b>glycerol</b> ether 50586-59-9 78067-35-3 <b>114464-79-8</b> 114465-08-6   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (detergents, liq., <b>dishwashing</b> , contg. abrasives, mild)  |      |          |                 |          |
| IT | <b>31694-55-0</b> , Polyethylene glycol <b>glycerol</b> ether <b>114464-79-8</b>   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (detergents, liq., <b>dishwashing</b> , contg. abrasives, mild)  |      |          |                 |          |
| RN | 31694-55-0 HCAPLUS   |      |          |                 |          |
| CN | Poly(oxy-1,2-ethanediyl), .alpha., .alpha., .alpha., .alpha., -1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)   |      |          |                 |          |



RN 114464-79-8 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.,.alpha.'-1,2,3-  
 propanetriyltris[.omega.-(sulfooxy)-, sodium salt (9CI) (CA INDEX NAME),



● x Na

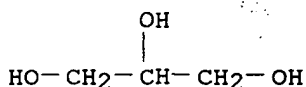
L35 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1988:152593 HCAPLUS  
 DN 108:152593  
 TI Rinsing aids for automatic dishwasher  
 IN Suzuki, Hideki; Sakai, Kaname; Kasahara, Akiko  
 PA Asahi Denka Kogyo K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D010-02  
 ICI C11D010-02, C11D001-72, C11D003-38, C11D003-20  
 CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | JP 62288697   | A2   | 19871215 | JP 1986-131272  | 19860606 |
| AB | The title aids providing spot-free glass and plastic tableware in reduced drying time contain polyoxyethylene sorbitan fatty acid ester, glycerol (and/or sugar alc.), and water. A compn. for polyoxyethylene sorbitan monolaurate 20, glycerol 60, and water 20% was dild. 1:2,000 and used as rinsing aid. |      |          |                 |          |
| ST | polyoxyethylene sorbitan laurate rinsing aid; glycerol rinsing aid automatic dishwasher   |      |          |                 |          |
| IT | Detergents<br>(rinsing aids, polyoxyethylene sorbitan <b>fatty acid</b> ester-based, for automatic <b>dishwashers</b> )   |      |          |                 |          |
| IT | <b>Fatty acids</b> , esters<br>RL: USES (Uses)<br>(esters, with ethoxylated sorbitan, rinsing aids, for automatic <b>dishwashers</b> )  |      |          |                 |          |
| IT | 50-70-4, Sorbitol, uses and miscellaneous <b>56-81-5</b> , <b>Glycerol</b> , uses and miscellaneous 9005-64-5 9005-65-6, Polyoxyethylene sorbitan monooleate 9005-67-8, Polyoxyethylene sorbitan monostearate 9005-70-3<br>RL: USES (Uses)<br>(rinsing aids contg., for automatic <b>dishwashers</b> )        |      |          |                 |          |
| IT | <b>56-81-5</b> , <b>Glycerol</b> , uses and miscellaneous   |      |          |                 |          |



RL: USES (Uses)  
(rinsing aids contg., for automatic **dishwashers**)  
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L35 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1987:479993 HCAPLUS

DN 107:79993

TI Emulsion-type dishwashing compositions

IN Deguchi, Katsuhiko; Tosaka, Masaki

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C11D003-38

CC 46-6 (**Surface Active Agents and Detergents**)

Section cross-reference(s): 75

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | JP 62027495  | A2   | 19870205 | JP 1985-167032  | 19850729 |
| AB | Oil-in-water-type emulsions contg. lyotropic liq. crystals are prepd. from emulsifiers 5-40, emulsifying auxiliaries 0.5-10, oils 5-40%, and water. Thus, a compn. comprised polyoxyethylene sorbitan monostearate (d.p. 20, emulsifier) 6, sorbitan monostearate (emulsifier) 7, a liq. paraffin 15, cetostearyl alc. 2, and water (balance). |      |          |                 |          |
| ST | emulsion dishwashing compn; lyotropic liq crystal dishwashing compn  |      |          |                 |          |
| IT | Egg yolk<br>(lecithins of, emulsifying auxiliaries, for oil-in-water-type emulsions, for <b>dishwashing</b> , contg. lyotropic liq. crystals)  |      |          |                 |          |
| IT | Beeswax<br>Coconut oil<br>Olive oil<br>Paraffin oils<br>RL: USES (Uses)<br>(oil-in-water-type emulsions, for <b>dishwashing</b> compns., contg. lyotropic liq. crystals)   |      |          |                 |          |
| IT | Alcohols, uses and miscellaneous<br>RL: USES (Uses)<br>(C16-18, emulsifying auxiliaries, for oil-in-water-type emulsions, for <b>dishwashing</b> , contg. lyotropic liq. crystals)   |      |          |                 |          |
| IT | Oils, <b>glyceridic</b><br>RL: USES (Uses)<br>(avocado, oil-in-water-type emulsions, for <b>dishwashing</b> compns., contg. lyotropic liq. crystals)   |      |          |                 |          |
| IT | Amides, uses and miscellaneous<br>RL: USES (Uses)<br>(coco, N,N-bis(hydroxyethyl), emulsifiers for oil-in-water type emulsion, for <b>dishwashing</b> , contg. lyotropic liq. crystals)  |      |          |                 |          |
| IT | Detergents<br>( <b>dishwashing</b> , oil-in-water-type emulsions, contg. lyotropic liq. crystals)  |      |          |                 |          |
| IT | Lecithins<br>RL: USES (Uses)<br>(egg yolk, emulsifying auxiliaries, for oil-in-water-type emulsions, for <b>dishwashing</b> , contg. lyotropic liq. crystals)  |      |          |                 |          |
| IT | Castor oil<br>RL: USES (Uses)  |      |          |                 |          |

(hydrogenated, poly(oxyethylene) derivs., emulsifiers, for oil-in-water-type emulsions for **dishwashing**, contg. lyotropic liq. crystals)

IT Waxes and Waxy substances  
RL: USES (Uses)  
(jojoba, oil-in-water-type emulsions, for **dishwashing** compns., contg. lyotropic liq. crystals)

IT Liquid crystals  
(lyotropic, oil-in-water-type emulsions contg., for **dishwashing**)

IT Emulsions  
(oil-in-water, for **dishwashing**, contg. lyotropic liq. crystals)

IT Amides, uses and miscellaneous  
RL: USES (Uses)  
(palm-oil, N-(hydroxyethyl), emulsifiers for oil-in-water type emergence, for **dishwashing**, contg. lyotropic liq. crystals)

IT **Fatty acids**, uses and miscellaneous  
RL: USES (Uses)  
(tallow, emulsifying auxiliaries, for oil-in-water-type emulsions, for **dishwashing**, contg. lyotropic liq. crystals)

IT 57-50-1D, beef tallow **fatty acid** esters 102-71-6D, **fatty acid** salts 124-22-1 1338-41-6, Sorbitan monostearate 9002-92-0 9005-67-8, Polyoxyethylene sorbitan monostearate 25322-68-3D, hardened castor oil derivs. 31566-31-1, Glycerin monostearate 31694-55-0D, mono beef tallow fatty esters 69070-98-0 107807-12-5 109882-91-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifiers, for oil-in-water-type emulsions for **dishwashing** compns., contg. lyotropic liq. crystals)

IT 57-88-5, Cholesterol, uses and miscellaneous 110-27-0, Isopropyl myristate 111-42-2D, coco alkyl derivs. 112-53-8, Lauryl alcohol 141-43-5D, palm-oil fatty amides 9004-32-4 9004-62-0 9004-67-5, Methyl cellulose 9007-16-3 9049-37-0, Pectic acid sodium salt  
RL: USES (Uses)  
(emulsifying auxiliaries, for oil-in-water-type emulsions, for **dishwashing**, contg. lyotropic liq. crystals)

IT 7732-18-5  
RL: USES (Uses)  
(emulsions, oil-in-water, for **dishwashing**, contg. lyotropic liq. crystals)

IT 111-01-3, Squalane 7360-38-5 59130-69-7, Cetyl 2-ethylhexanoate  
RL: USES (Uses)  
(oil-in-water-type emulsions, for **dishwashing** compns., contg. lyotropic liq. crystals)

IT 31566-31-1, Glycerin monostearate 31694-55-0D, mono beef tallow fatty esters  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifiers, for oil-in-water-type emulsions for **dishwashing** compns., contg. lyotropic liq. crystals)

RN 31566-31-1, HCAPLUS  
CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI), (CA INDEX NAME)

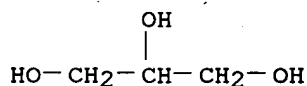
CM 1

CRN 57-11-4

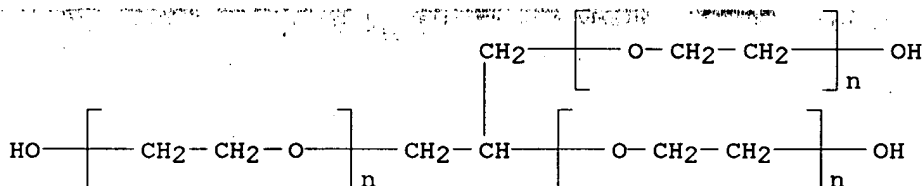
CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 2



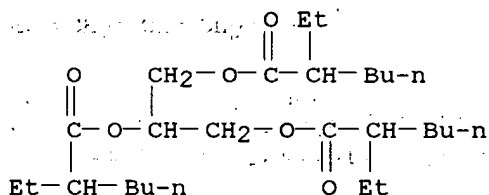
RN 31694-55-0 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



IT 7360-38-5

RL: USES (Uses)  
(oil-in-water-type emulsions, for dishwashing compns., contg.  
-lyotropic liq. crystals)

RN 7360-38-5 HCAPLUS  
CN Hexanoic acid, 2-ethyl-, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)



L35 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1987:425152 HCAPLUS

DN 107:25152

TI Low foaming biodegradable nonionic surfactants

AU Pierr, R.; Hoefer, R.; Schluessler, H. J.; Schmid, K. H.

CS Henkel K.-G.a.A.; Duesseldorf, 4000/1, Fed. Rep. Ger.

SO Fett Wiss. Technol. (1987), 89(3), 106-11

CODEN: FWTEEG

DT Journal

LA German

CC 46-4 (Surface Active Agents and  
Detergents)

Section cross-reference(s): 35

AB Mixed diethers and hydroxy mixed diethers of polyethylene glycol were good  
low-foaming surfactants for bottle washing and antifoaming agents for  
emulsion polymn. and were biodegradable.

ST polyoxyethylene diether antifoamer polymn; biodegradable nonionic  
nonfoaming detergent

IT Antifoaming agents

(nonionic, biodegradable, ethoxylates, prepn. of, for emulsion polymn.)

IT Bottles

(washing of, prepn. of biodegradable nonionic low-foaming  
surfactants for)

IT Surfactants

(biodegradable, nonionic, low-foaming, ethoxylates, prepn. of, for  
automated bottle washing)

IT **Fatty acids, esters**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (branched, vinyl esters, polymers with acrylic acid and vinyl acetate,  
 prepn. of, in emulsion, antifoaming agents for)

IT Polymerization  
 (emulsion, of acrylic acid with vinyl acetate and vinyl versatate,  
 antifoaming agents for)

IT Alcohols, compounds  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (fatty, ethoxylated, prepn. of, as low-foaming biodegradable detergents  
 for bottle **washing**)

IT 98815-11-3 98815-12-4 98815-13-5 98815-14-6  
 RL: USES (Uses)  
 (antifoaming agents, for emulsion polymn. of acrylic acid with vinyl  
 acetate and vinyl versatate)

IT 9004-98-2D, mixed ethers with hydroxystearyl alc. **25618-55-7D**,  
 Poly **glycerol**, ethoxylated, alkyl ethers 61909-81-7D, mixed  
 ethers with oleyl alc. 94619-17-7 109075-71-0 109075-72-1  
 RL: USES (Uses)  
 (foam-inhibiting properties of)

IT 52503-47-6  
 RL: USES (Uses)  
 (foaming inhibiting properties of)

IT 79-10-7DP, polymers with vinyl acetate and branched **fatty**  
**acid** vinyl esters 108-05-4DP, polymers with acrylic **acid**  
 and branched **fatty acid** vinyl esters  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of, in emulsion, antifoaming agents for)

IT **25618-55-7D**, Poly **glycerol**, ethoxylated, alkyl ethers  
 RL: USES (Uses)  
 (foam-inhibiting properties of)

RN 25618-55-7 HCAPLUS

CN 1,2,3-Propanetriol, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L35 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2001 ACS

AN 1985:408015 HCAPLUS

DN 103:8015

TI Work of adhesion of oily dirt and correlation with washability

AU Saito, Masako; Otani, Mamiko; Yabe, Akihiko

CS Kyoritsu Women's Univ., Tokyo, Japan

SO Text. Res. J. (1985), 55(3), 157-64

CODEN: TRJOA9; ISSN: 0040-5175

DT Journal

LA English

CC 46-5 (**Surface Active Agents and**  
**Detergents**)

Section cross-reference(s): 40

AB Adhesion and removal of dirt in the detergent process was interpreted from  
 the point of interfacial phenomena, and the energetic measure of the  
 adhesion and removal reaction was estd. by the work of adhesion (W<sub>a</sub>) of  
 each system using the dispersion and polar force components of polymers  
 and oily dirt. Soilability and washability of oily dirt were estd. from  
 the values of W<sub>a</sub>, and the correlation between W<sub>a</sub> and washability was  
 confirmed through expts. involving fatty acids, fatty alcs., and  
 triglycerides on cellulosic, diacetate, triacetate, and polyester fabrics.

The limitations and applicability of this surface energy anal. to the detergency system were then discussed.

ST work adhesion oily dirt textile; detergency oily dirt textile; acetate fiber work adhesion dirt; polyester fiber work adhesion dirt; cellulosic fiber work adhesion dirt; washability textile oily dirt; surface energy washability textile

IT Detergency  
(in oily dirt removal from textiles, work of adhesion and surface energy in relation to)

IT Polyester fibers, properties  
Rayon, properties  
RL: PRP (Properties)  
(work of adhesion of oily dirt on, **washability** in relation to)

IT Alcohols, properties  
**Fatty acids**, properties  
**Glycerides**, properties  
RL: PRP (Properties)  
(work of adhesion of, calcn. of, on fibers)

IT Energy  
(adhesive, of oily dirt, on textiles, **washability** in relation to)

IT Acetate fibers, properties  
RL: PRP (Properties)  
(diacetate, work of adhesion of oily dirt on, **washability** in relation to)

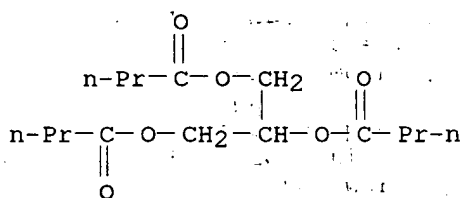
IT Acetate fibers, properties  
RL: PRP (Properties)  
(triacetate, work of adhesion of oily dirt on, **washability** in relation to)

IT 57-10-3, properties 57-11-4, properties **60-01-5** 71-36-3, properties 71-41-0, properties 107-92-6, properties 111-27-3, properties 111-70-6 111-87-5, properties 112-30-1 112-53-8 112-72-1 124-07-2, properties 142-62-1, properties 143-07-7, properties 143-08-8 334-48-5 **538-24-9** 544-63-8, properties **555-43-1 555-44-2 555-45-3 621-70-5** 26762-44-7 30207-98-8 36653-82-4  
RL: PRP (Properties)  
(work of adhesion of, calcn. of, on fibers)

IT **60-01-5 538-24-9 555-43-1 555-44-2 555-45-3 621-70-5**  
RL: PRP (Properties)  
(work of adhesion of, calcn. of, on fibers)

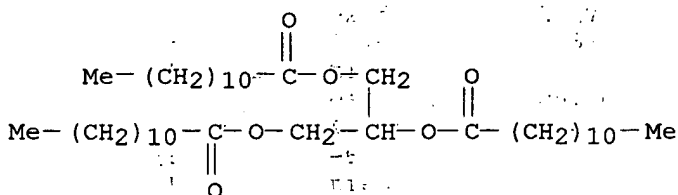
RN 60-01-5 HCAPLUS

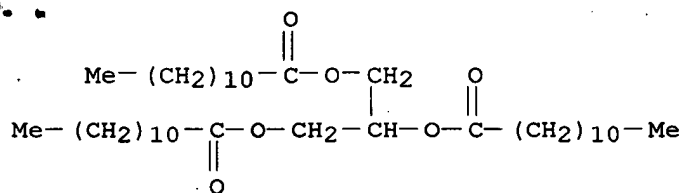
CN Butanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)



RN 538-24-9 HCAPLUS

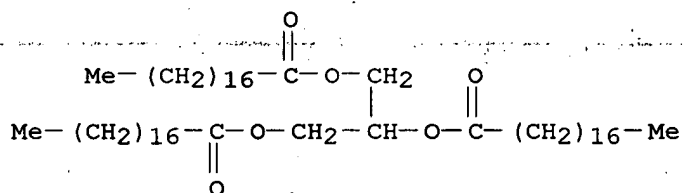
CN Dodecanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)





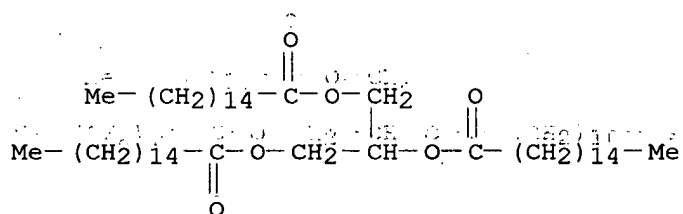
RN 555-43-1 HCAPLUS

CN Octadecanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)



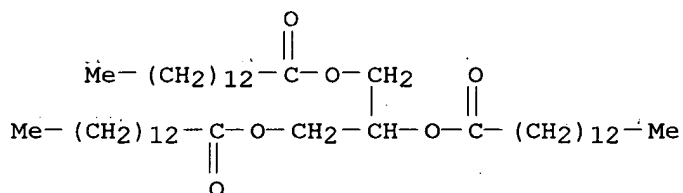
RN 555-44-2 HCAPLUS

CN Hexadecanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)



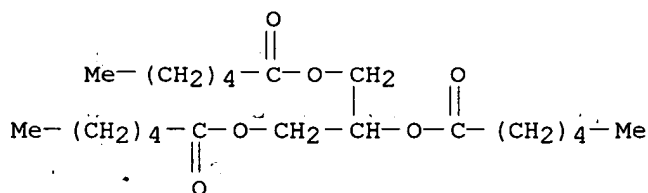
RN 555-45-3 HCAPLUS

CN Tetradecanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)

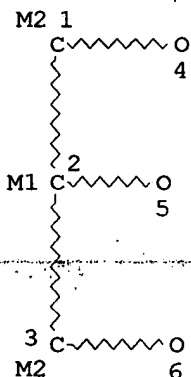


RN 621-70-5 HCAPLUS

CN Hexanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)



L9  
L12 SCR 1838  
STR



NODE ATTRIBUTES:

|        |       |    |   |
|--------|-------|----|---|
| HCOUNT | IS M2 | AT | 1 |
| HCOUNT | IS M1 | AT | 2 |
| HCOUNT | IS M2 | AT | 3 |
| NSPEC  | IS C  | AT | 1 |
| NSPEC  | IS C  | AT | 2 |
| NSPEC  | IS C  | AT | 3 |
| NSPEC  | IS C  | AT | 4 |
| NSPEC  | IS C  | AT | 5 |
| NSPEC  | IS C  | AT | 6 |

DEFAULT MLEVEL IS ATOM  
MLEVEL IS CLASS AT 1 2 3 4 5 6  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

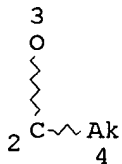
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L15 STR

H 5

G1 1



VAR G1=5/2

NODE ATTRIBUTES:

|       |      |    |   |
|-------|------|----|---|
| NSPEC | IS C | AT | 1 |
| NSPEC | IS C | AT | 2 |
| NSPEC | IS C | AT | 3 |
| NSPEC | IS C | AT | 4 |

DEFAULT MLEVEL IS ATOM  
MLEVEL IS CLASS AT 2 3 4 5  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L17 32587 SEA FILE=REGISTRY SSS FUL L12 AND L15 NOT L9

L19 99761 SEA FILE=HCAPLUS ABB=ON PLU=ON L17  
 L20 47758 SEA FILE=HCAPLUS ABB=ON PLU=ON (SURFACE ACTIVE AGENTS AND  
 DETERGENTS)/CC  
 L21 1888 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 AND L19  
 L33 827 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND (GLYCERID? OR  
 TRIGLYCERID? OR GLYCEROL? OR MONOGLYCER? OR DIGLYCER?)/IT  
 L34 243 SEA FILE=HCAPLUS ABB=ON PLU=ON (FATTY(3A)ACID)/IT AND L33  
 L35 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (BATH? OR DISH? OR WASH? OR  
 HAIR)/IT AND L34  
 L37 180 SEA FILE=HCAPLUS ABB=ON PLU=ON (DETERGENT? OR SHAMPOOS OR  
 CONDITION? OR SOAP? OR SURFACTANT)/IT AND L34  
 L39 52 SEA FILE=HCAPLUS ABB=ON PLU=ON ((ETHOXYLAT? OR ALKOXYLAT? OR  
 PROPOXYL?) (S) (?GLYCER?)) AND L37  
 L40 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 NOT L35



L40 ANSWER 1 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2001:28646 HCAPLUS  
 DN 134:87942  
 TI Aqueous pearlescent surfactant concentrates  
 IN Nieendick, Claus; Nalborczyk, Mirella; Eggers, Anke  
 PA Cognis Deutschland G.m.b.H., Germany  
 SO Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM C11D003-20  
 ICS C11D001-66; C11D001-83; C11D001-835; C11D001-825; C11D001-94;  
 A61K007-075  
 CC 46-3 (Surface Active Agents and  
 Detergents)  
 Section cross-reference(s): 62, 63

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|--|------|----------|------------------|----------|
| PI   | EP 1067175   | A1   | 20010110 | EP 2000-113882   | 20000630 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO   |      |          |                  |          |
|      | DE 19931998  | A1   | 20010118 | DE 1999-19931998 | 19990709 |
| PRAI | DE 1999-19931998   |      | 19990709 |                  |          |
| AB   | The title compns. contain esters (prepd. from polyols bearing 2-6 OH groups, C1-22 fatty acids, and C2-4 hydroxy acids) 1-99.9, emulsifiers 0.1-99, and polyols 0-40%. An aq. mixt. of <b>glycerol</b> monostearate malate 25, <b>ethoxylated</b> (d.p. 4) coco alcs. 5, coco-alkyl glucoside 9, coco fatty acid betaine 5, and <b>glycerol</b> 5% had viscosity 7.4 and 7.7 Pa-s after 1 and 14 days, resp., at 40.degree. and good stability after 4 wk at 40.degree.. |      |          |                  |          |
| ST   | surfactant conc aq pearlescent; ester polyol surfactant aq pearlescent; glycerol stearate malate surfactant pearlescent; fatty acid betaine surfactant pearlescent; glucoside alkyl surfactant pearlescent   |      |          |                  |          |
| IT   | <b>Fatty acids</b> , uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(C1-22, esters with polyols and hydroxy acids; aq. pearlescent <b>surfactant</b> concs.)   |      |          |                  |          |
| IT   | Alcohols, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(C2-6, polyhydric, esters with <b>fatty acids</b> and hydroxy <b>acids</b> ; aq. pearlescent <b>surfactant</b> concs.)  |      |          |                  |          |
| IT   | Emulsifying agents<br>Pearly materials<br><b>Surfactants</b><br>(aq. pearlescent <b>surfactant</b> concs.)   |      |          |                  |          |
| IT   | Betaines<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(coco <b>fatty acid</b> ; aq. pearlescent <b>surfactant</b> concs.)   |      |          |                  |          |
| IT   | <b>Fatty acids</b> , uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(coco, betaines; aq. pearlescent <b>surfactant</b> concs.)   |      |          |                  |          |
| IT   | Alcohols, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(coco, ethoxylated; aq. pearlescent <b>surfactant</b> concs.)   |      |          |                  |          |
| IT   | Glycosides<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(coco-alkyl; aq. pearlescent <b>surfactant</b> concs.)  |      |          |                  |          |
| IT   | Carboxylic acids, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(hydroxy, C2-4, esters with polyols and <b>fatty acids</b> ; aq. pearlescent <b>surfactant</b> concs.)  |      |          |                  |          |

IT. Esters, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyol-fatty acid-hydroxy acid; aq.  
 pearlescent surfactant concs.)

IT 56-81-5, Glycerol, uses 627-83-8, Ethylene glycol  
 distearate 236424-12-7, Glycerol monostearate malate  
 316363-39-0, Ethylene glycol monostearate citrate 316363-40-3, Sorbitol  
 distearate lactate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (aq. pearlescent surfactant concs.)

RE.CNT 4  
 RE  
 (1) Henkel Kgaa; DE 3843572 A 1990 HCAPLUS  
 (2) Henkel Kgaa; DE 4103551 A 1992 HCAPLUS  
 (3) Henkel Kgaa; DE 19719121 C 1998 HCAPLUS  
 (4) Henkel Kgaa; DE 19814608 C 1999 HCAPLUS

IT 56-81-5, Glycerol, uses 236424-12-7,  
 Glycerol monostearate malate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (aq. pearlescent surfactant concs.)

RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH  
 HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

RN 236424-12-7 HCAPLUS  
 CN Butanedioic acid, hydroxy-, ester with 1,2,3-propanetriol  
 monooctadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 6915-15-7

CMF C4 H6 O5

OH  
 HO<sub>2</sub>C-CH-CH<sub>2</sub>-CO<sub>2</sub>H

CM 2

CRN 31566-31-1

CMF C21 H42 O4

CCI IDS

CDES 8:ID

CM 3

CRN 57-11-4

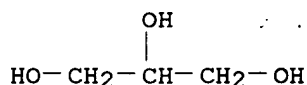
CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 4

CRN 56-81-5

CMF C3 H8 O3



L40 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:900298 HCAPLUS  
 DN 134:58244  
 TI Manufacture of aqueous concentrates of pearlescent (hydroxy)polycarboxylic acid amides  
 IN Nieendick, Claus; Eggers, Anke; Westfechtel, Alfred  
 PA Cognis Deutschland G.m.b.H., Germany  
 SO Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 IC ICM C11D001-52  
 ICS C11D001-65; C11D001-835; C11D001-645; C11D001-94; A61K007-00  
 CC 46-3 (Surface Active Agents and Detergents)  
 Section cross-reference(s): 62

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|--|------|----------|------------------|----------|
| PI   | EP 1061121   | A1   | 20001220 | EP 2000-112215   | 20000607 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO  |      |          |                  |          |
|      | DE 19927171  | A1   | 20001221 | DE 1999-19927171 | 19990615 |
| PRAI | DE 1999-19927171   |      | 19990615 |                  |          |
| OS   | MARPAT 134:58244   |      |          |                  |          |
| AB   | The title cons., useful in detergents and pharmaceutical and cosmetic formulations, comprise (a) (hydroxy)polycarboxylic acid amides R5R6NCOCHR1CR2R3COR4 [I; R1, R2 = H, OH; R3 = H, CO2H, CONR7R8; R4 = OH, NR9R10; R5, R7, R9 = H, C1-22 alk(en)yl; R6, R8, R10 = C1-22 alk(en)yl; radicals R3-R9 together contain .gtoreq.16 C atoms], (b) anionic, nonionic, cationic, ampholytic and/or zwitterionic emulsifiers 0.1-99, and (c) polyols, e.g., glycerol, polyethylene glycol, etc., 0-40%. I obtained by conversion of tartaric, citric and malic acid diesters with fatty amines are preferred. The preferred emulsifiers (b) are zwitterionic surfactants. For example, a title conc. used in hair shampoo contained tartaric acid N,N-di(coco alkyl)diamide 25, <b>ethoxylated</b> (4 EO) coco alcs. 5, coco alkyl glycoside 9, coco fatty acid betaine 5 and <b>glycerol</b> 5% in H2O. |      |          |                  |          |
| ST   | pearlescent hydroxy polycarboxylic acid alkylamide aq conc shampoo; pearly luster aq conc hydroxy polycarboxylic acid alkylamide   |      |          |                  |          |
| IT   | Polyoxyalkylenes, uses   |      |          |                  |          |
|      | RL: TEM (Technical or engineered material use); USES (Uses) (coco alkyl ethers; manuf. of aq. cons. of pearlescent N,N-dialkylamides of (hydroxy)polycarboxylic acids, emulsifiers and polyols)  |      |          |                  |          |
| IT   | Betaines   |      |          |                  |          |
|      | RL: TEM (Technical or engineered material use); USES (Uses) (coco <b>fatty acid</b> derivs.; manuf. of aq. cons. of pearlescent N,N-dialkylamides of (hydroxy)polycarboxylic acids, emulsifiers and polyols)   |      |          |                  |          |
| IT   | Pearly materials   |      |          |                  |          |
|      | <b>Shampoos</b>  |      |          |                  |          |
|      | (manuf. of aq. cons. of pearlescent N,N-dialkylamides of (hydroxy)polycarboxylic acids, emulsifiers and polyols)   |      |          |                  |          |
| IT   | Polyoxyalkylenes, uses   |      |          |                  |          |
|      | RL: TEM (Technical or engineered material use); USES (Uses) (manuf. of aq. cons. of pearlescent N,N-dialkylamides of (hydroxy)polycarboxylic acids, emulsifiers and polyols)   |      |          |                  |          |
| IT   | Emulsifying agents   |      |          |                  |          |
|      | (manuf. of aq. cons. of pearlescent N,N-dialkylamides of   |      |          |                  |          |

(hydroxy)polycarboxylic acids, polyols and zwitterionic  
**surfactants** as)  
 IT Alcohols, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (polyhydric; manuf. of aq. concs. of pearlescent N,N-dialkylamides of  
 (hydroxy)polycarboxylic acids, emulsifiers and)  
 IT **Surfactants**  
 (zwitterionic, emulsifiers; manuf. of aq. concs. of pearlescent  
 N,N-dialkylamides of (hydroxy)polycarboxylic acids, polyols and)  
 IT **56-81-5, Glycerol**, uses 57-55-6, 1,2-Propylene glycol,  
 uses 107-41-5, Hexylene glycol 627-83-8, Ethylene glycol distearate  
 6051-30-5D, Tartaric acid diamide, N,N-di(coco alkyl) derivs.  
 25265-75-2, Butylene glycol 25322-68-3, Polyethylene glycol  
 25322-68-3D, Polyethylene glycol, coco alkyl ethers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of aq. concs. of pearlescent N,N-dialkylamides of  
 (hydroxy)polycarboxylic acids, emulsifiers and polyols)

RE.CNT 7

RE

- (1) Ansmann, A; WO 9906514 A 1999 HCAPLUS
- (2) Henkel Kgaa; DE 3843572 A 1990 HCAPLUS
- (3) Henkel Kgaa; DE 4103551 A 1992 HCAPLUS
- (4) Henkel Kgaa; DE 19622968 A 1997 HCAPLUS
- (5) Kao Corp; JP 08231985 A 1996 HCAPLUS
- (6) Otsuka Pharma Co Ltd; EP 0500946 A 1992 HCAPLUS
- (7) Rhone Poulenc Inc; WO 9713498 A 1997 HCAPLUS

IT **56-81-5, Glycerol**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of aq. concs. of pearlescent N,N-dialkylamides of  
 (hydroxy)polycarboxylic acids, emulsifiers and polyols)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:756381 HCAPLUS

DN 133:323320

TI Toilet bowl sanitizers

IN Kahre, Joerg; Elsner, Michael; Hanke, Anja; Kischkel, Ditmar; Fabry, Bernd

PA Cognis Deutschland GmbH, Germany

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C11D001-94

CC 46-6 (Surface Active Agents and  
 Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|---|------|----------|------------------|----------|
| PI | DE 19918185   | A1   | 20001026 | DE 1999-19918185 | 19990422 |
|    | WO 2000065005   | A2   | 20001102 | WO 2000-EP3297   | 20000413 |
|    | W: JP, US   |      |          |                  |          |
|    | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, |      |          |                  |          |
|    | PT, SE  |      |          |                  |          |

PRAI DE 1999-19918185 19990422

OS MARPAT 133:323320

AB Flush-activated toilet cleaning gel compns. are based on (a) alkyl and/or  
 alkenyl oligoglycoside, (b) alkyl and/or alkenyl (ether) sulfates and/or  
 betaines, and (c) **ethoxylated glycerol** fatty acid  
 esters. The compns. are bactericidal, have improved cleaning capacity, do

*Two New*

• not require thickeners, have good foaming ability, can incorporate considerable amts. of perfumes, and show a long operating life with complete flush-dispensing of ingredients. Examples contained Glucopon 650EC and/or 220UP, Texapon LS 35 and/or NSO, optionally Dehyton K, and PEG glyceryl stearate, isostearate, and/or behenate.

ST toilet bowl sanitizer flush activated

IT Glycosides  
RL: TEM (Technical or engineered material use); USES (Uses)  
(alkyl oligoglycosides; flush-activated toilet bowl sanitizing compns. contg.)

IT **Surfactants**  
(anionic; flush-activated toilet bowl sanitizing compns. contg.)

IT **Fatty acids**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(esters, with triethoxylated **glycerol**; flush-activated toilet bowl sanitizing compns. contg.)

IT Betaines  
RL: TEM (Technical or engineered material use); USES (Uses)  
(flush-activated toilet bowl sanitizing compns. contg.)

IT **Surfactants**  
(nonionic; flush-activated toilet bowl sanitizing compns. contg.)

IT Glycosides  
RL: TEM (Technical or engineered material use); USES (Uses)  
(oligoglycosides, alkenyl; flush-activated toilet bowl sanitizing compns. contg.)

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IT **Detergents**  
(toilet bowl cleaners; flush-activated toilet bowl sanitizing compns.)

IT 9004-82-4, Texapon NSO **53195-79-2** 83138-08-3, Dehyton K  
**84101-04-2** 152987-82-1, Texapon LS 35 177893-29-7, Glucopon 650EC 220385-22-8, Glucopon 220UP **303150-20-1**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(flush-activated toilet bowl sanitizing compns. contg.)

IT **53195-79-2 84101-04-2 303150-20-1**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(flush-activated toilet bowl sanitizing compns. contg.)

RN 53195-79-2 HCAPLUS

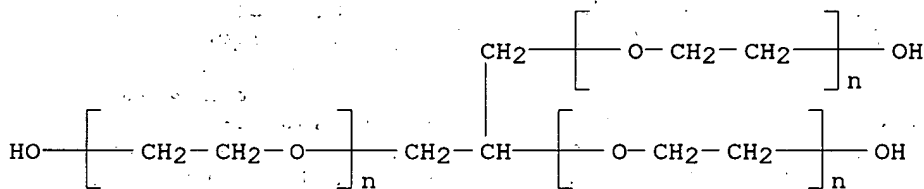
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy-, monooctadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 31694-55-0

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C3 H8 O3

CCI PMS



CM 2

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

RN 84101-04-2 HCAPLUS

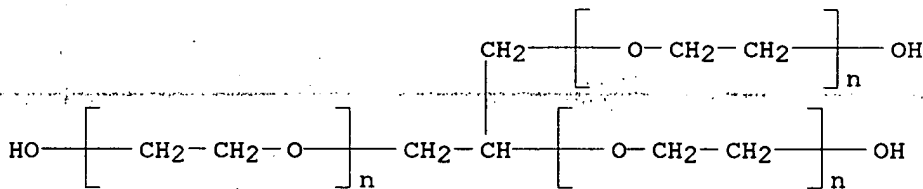
CN. Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
propanetriyltris[.omega.-hydroxy-, monododecanoate (9CI) (CA INDEX  
NAME)

CM 1

CRN 31694-55-0

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C3 H8 O3

CCI PMS



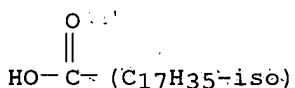
CM 2

CRN 30399-84-9

CMF C18 H36 O2

CCI IDS

CDES 8:ID,ISO



RN 303150-20-1 HCAPLUS

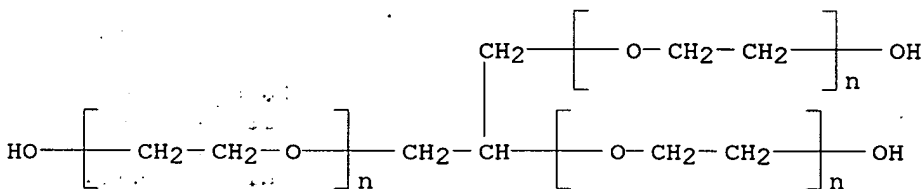
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
propanetriyltris[.omega.-hydroxy-, monodocosanoate (9CI) (CA INDEX NAME)

CM 1

CRN 31694-55-0

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C3 H8 O3

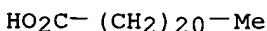
CCI PMS



CM 2

CRN 112-85-6

CMF C22 H44 O2



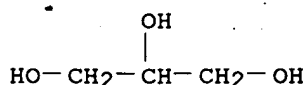
L40 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:548783 HCAPLUS

DN. 133:165462  
 TI Solid premixes for laundry rinsing aids  
 IN Schreiber, Manfred; Seliskar, Marjaha  
 PA Clariant G.m.b.H., Germany  
 SO Ger. Offen., 4 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM D06M013-46  
 ICS D06M013-224  
 CC 46-6 (Surface Active Agents and Detergents)

FAN. CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|--|------|----------|------------------|----------|
| PI | DE 19904234  | A1   | 20000810 | DE 1999-19904234 | 19990203 |
| OS | MARPAT 133:165462  |      |          |                  |          |
| AB | The title compns., with good dispersibility, contain the quaternized betaines RCONH(CH <sub>2</sub> ) <sub>a</sub> N(R <sub>1</sub> )(R <sub>1</sub> )CH <sub>2</sub> COOR <sup>+</sup> A <sup>-</sup> [R = C1-21 alkyl(ene), R <sub>1</sub> = C1-4 alkyl, a = 1-3, A = anion] 50-90; polyol esters of specified structure 1-20; alkoxyated amines or diamines 1-20; ethylene glycol, 1,2-propanediol, or polyalkylene glycols (mol. wt. 200-4000) or their alkyl ethers 0-20%; and optionally acids. A suitable premix contained a quaternized betaine ester quat 75, ethoxylated (d.p. 3) C12-15 oxo alc. 5, ethoxylated stearylamine (d.p. 25) 5, and polyethylene glycol (mol. wt. 400) 15%. |      |          |                  |          |
| ST | laundry rinsing aid premix solid; betaine ester quat rinsing aid; ester polyol rinsing aid; stearylamine ethoxylated rinsing aid; amine alkoxyated rinsing aid; polyethylene glycol rinsing aid; polyoxyalkylene rinsing aid solid   |      |          |                  |          |
| IT | Alcohols, uses<br>Amines, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(alkoxyated; solid premixes for laundry rinsing aids)   |      |          |                  |          |
| IT | Polyoxyalkylenes, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(alkyl group-terminated; solid premixes for laundry rinsing aids)   |      |          |                  |          |
| IT | Amines, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(diamines, alkoxyated; solid premixes for laundry rinsing aids)   |      |          |                  |          |
| IT | Betaines<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(ester quats; solid premixes for laundry rinsing aids)  |      |          |                  |          |
| IT | <b>Fatty acids</b> , uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(esters; solid premixes for laundry rinsing aids)  |      |          |                  |          |
| IT | <b>Detergents</b><br>(rinsing aids; solid premixes for laundry rinsing aids)   |      |          |                  |          |
| IT | Polyoxyalkylenes, uses<br>Polyoxyalkylenes, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(solid premixes for laundry rinsing aids)   |      |          |                  |          |
| IT | <b>56-81-5D, Glycerol, alkoxyated, fatty acid esters</b> 57-55-6, 1,2-Propanediol, uses 107-21-1, Ethylene glycol, uses 115-77-5D, Pentaerythritol, <b>fatty acid diesters</b> 25322-68-3, Polyethylene glycol 26635-92-7<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(solid premixes for laundry rinsing aids)  |      |          |                  |          |
| IT | <b>56-81-5D, Glycerol, alkoxyated, fatty acid esters</b><br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(solid premixes for laundry rinsing aids)   |      |          |                  |          |
| RN | 56-81-5 HCAPLUS  |      |          |                  |          |
| CN | 1,2,3-Propanetriol (9CI) (CA INDEX NAME)   |      |          |                  |          |



L40 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:57078 HCAPLUS

DN 133:19121

TI Tensammetry of nonionic surfactants at solid-state electrodes. Correlation with other physicochemical parameters.

AU Buschmann, N.; Hulskotter, F.

CS Chair for Analytical Chemistry, University of Munster, Munster, Germany

SO Riv. Ital. Sostanze Grasse (1999), 76(10), 419-424

CODEN: RISGAD; ISSN: 0035-6808

PB Stazione Sperimentale per le Industrie degli Oli e dei Grassi

DT Journal

LA English

CC 46-3 (Surface Active Agents and Detergents)

AB The most important property of surface active agents is their ability to enrich on almost all surfaces or interfaces. Surfactants that adsorb on the surface of a charged metal electrode influence the electrochem. double layer (Helmholtz layer) between the metal surface and the soln. This area can be regarded as an elec. capacitor and thus a change of the elec. capacity of the electrode can be detd. by electrochem. methods like tensammetry. Tensammetry is a special voltammetric method that only measures the capacitive current, i.e., the capacity of the double layer. The adsorption behavior of different nonionic surfactants (alkyl **ethoxylates**, alkylphenyl **ethoxylates**, alkyl polyglucosides, sorbitan esters, and **glycerol** fatty acid partial esters) at charged metal electrodes was investigated tensammetrically. The results of this new method that allows kinetic measurements were correlated with those of other physicochem. methods like measurement of wetting time and dynamic surface tension. Tensammetry proved to be well suited for detg. dynamic physicochem. parameters of surfactant solns. Moreover, the method can easily be automated and thus it can simplify or even supplement other techniques.

ST tensammetry nonionic surfactant charged metal electrode; adsorption kinetics nonionic surfactant voltammetry capacitive current

IT Adsorption Kinetics

Wetting

(adsorption kinetics of nonionic **surfactants** by tensammetry at charged metal electrodes)

IT Polyoxyalkylenes, properties

RL: PRP (Properties)

(alkyl and alkylphenyl ethers; adsorption kinetics of nonionic **surfactants** by tensammetry at charged metal electrodes)

IT Phenols, properties

RL: PRP (Properties)

(alkyl, ethoxylated; adsorption kinetics of nonionic **surfactants** by tensammetry at charged metal electrodes)

IT Glycosides

RL: PRP (Properties)

(alkyl; adsorption kinetics of nonionic **surfactants** by tensammetry at charged metal electrodes)

IT Alcohols, properties

RL: PRP (Properties)

(ethoxylated; adsorption kinetics of nonionic **surfactants** by tensammetry at charged metal electrodes)

IT **Surfactants**

(nonionic; adsorption kinetics of nonionic **surfactants** by tensammetry at charged metal electrodes)

IT 56-81-5D, **Glycerol**, fatty acid

partial esters 9036-19-5, Marlophen 85 12441-09-7D, Sorbitan, esters 25322-68-3D, alkyl and alkylphenyl ethers

RL: PRP (Properties)



(adsorption kinetics of nonionic surfactants by tensammetry  
at charged metal electrodes)

RE.CNT 12

RE

- (1) Anon; Alkyl Polyglucosides 1996, P146
- (2) Anon; personal communication from Balzer D
- (3) Bartolome, S; Melliand Textilberichte 1950, V31, P489
- (4) Gerlache, G; Talanta 1996, V43, P507
- (5) Huls AG; Product data sheets Marlophen and Marlipal
- (6) Jehring, H; Elektrosorptionsanalyse mit der Wechselstrompolarographie 1974, P252
- (7) Jehring, H; Tenside 1969, V6, P251 HCAPLUS
- (8) Kiraly, Z; Langmuir 1997, V13, P3308 HCAPLUS
- (9) Kosswig, K; Die Tenside 1993, P148
- (10) Schwuger, M; Lehrbuch der Grenzflächenchemie 1996, P237
- (11) Van Os, N; Physico-chemical properties on selected anionic, cationic and nonionic surfactants 1993, P203
- (12) Weil, J; JAOCS 1979, V56, P873 HCAPLUS

IT 56-81-5D, Glycerol, fatty acid  
partial esters

RL: PRP (Properties)

(adsorption kinetics of nonionic surfactants by tensammetry  
at charged metal electrodes)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

(adsorption kinetics of nonionic surfactants by tensammetry  
at charged metal electrodes)

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:819288 HCAPLUS

DN 132:65775

TI Polyols having lipophilic substituents and preparation thereof for  
cold-processable thickeners for surfactant systems

IN Polovsky, Stuart Barry; Barbeito, Carmella; Li, Wing Kin; Diantonio,  
Edward F.; Kreeger, Russell Lowell

PA Union Carbide Chemicals & Plastics Technology Corp., USA

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM B01F017-00

CC 46-4 (Surface Active Agents and  
Detergents)

Section cross-reference(s): 62

FAN.CNT 1

|      | PATENT NO.      | KIND   | DATE     | APPLICATION NO. | DATE     |
|------|-----------------|--|----------|-----------------|----------|
| PI   | WO 9967017      | A1   | 19991229 | WO 1999-US14072 | 19990622 |
|      | W:              | AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KR, KZ, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, TT, UA, US, UZ, VN, ZA, AM, AZ, BY, KG, KZ, MD, TJ, TM |          |                 |          |
|      | RW:             | GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                 |          |                 |          |
|      | AU 9947066      | A1   | 20000110 | AU 1999-47066   | 19990622 |
| PRAI | US 1998-90324   |  | 19980623 |                 |          |
|      | WO 1999-US14072 |  | 19990622 |                 |          |

AB Title polyols, e.g., alkoxylated lipophilic polyol compds., esp.  
ethoxylated, esterified Me glucosides, in which >5% of the polyol  
derivs. have about three moles of the lipophilic substituent per mol of  
polyol, can be dissolved in aq. solns. to provide liq. thickeners suitable

for thickening surfactant-contg. compns., e.g., shampoos, dishwashing liqs., coatings, etc., at cold processing temps. Thus, 192 g Glucam E 20 was dried 0.5 h at 140.degree. and .apprx.10 mm Hg with KOH, ethoxylated with 630 g ethylene oxide at 140-145.degree. and 65 psig, and digested 1 h to give hard, white, waxy PEG 100 Me glucoside, which (476 g) was melted, stirred with 4.4 g oxalic acid for .apprx.0.5 h, dried, reacted with 101 g Me oleate .apprx.5 h under vacuum, the pH adjusted to 6-7 with oxalic acid, and dried at 110.degree. and <5 mm Hg, giving a brown waxy solid having sapon. value 37.0 and hydroxy value 14.0, which was cooled to 80.degree. during addn of 566 g propylene glycol and 283 g H2O, and cooled with stirring to give a light brown soln. having viscosity .apprx.2000 cP.

ST lipophilic ethoxylated polyol thickener surfactant; cold processable surfactant thickener; glucoside ethoxylated oleated thickener surfactant

IT Fats and **Glyceridic** oils, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (animal, reaction products with **alkoxylated** glucose derivs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT Cosmetics  
 (cleansing, liqs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT **Fatty acids**, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (esters, with alkoxylated glucose derivs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT Ethers, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (glycidyl, reaction products with alkoxylated glucose derivs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT **Surfactants**  
 Thickening agents  
 (polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT Halides  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (reaction products with alkoxylated glucose derivs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT Epoxides  
**Fatty acids**, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (reaction products, with alkoxylated glucose derivs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT Fats and **Glyceridic** oils, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (vegetable, reaction products, with **alkoxylated** glucose derivs.; polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT 112-62-9DP, Methyl oleate, reaction products with ethoxylated Me glucosides 68239-42-9DP, Glucam E 20, ethoxylated, reaction products with Me oleate 86893-19-8DP, Glucamate DOE 120, reaction products with Me oleate  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

IT 50-70-4D, Sorbitol, alkoxylated, reaction products with lipophilic compds.

50-99-7D, Glucose, alkoxylated, reaction products with lipophilic compds.  
56-81-5D, Glycerol, alkoxylated, reaction products with lipophilic compds. 5391-18-4D, Butyl glucoside, alkoxylated, reaction products with lipophilic compds. 34384-77-5D, alkoxylated, reaction products with lipophilic compds. 34625-23-5D, Ethyl glucoside, alkoxylated, reaction products with lipophilic compds. 66957-71-9D, alkoxylated, reaction products with lipophilic compds.  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

RE.CNT 2

RE

(1) Kinney, J; US 4450090 A 1984 HCAPLUS

(2) Smolin, M; US 4687843 A 1987 HCAPLUS

IT 56-81-5D, Glycerol, alkoxylated, reaction products with lipophilic compds.

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polyols having lipophilic substituents and prepn. thereof for cold-processable thickeners for **surfactant** systems)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

HO-CH<sub>2</sub>-CH(OH)-CH<sub>2</sub>-OH  
50-99-7D, Glucose, alkoxylated, reaction products with lipophilic compds.  
56-81-5D, Glycerol, alkoxylated, reaction products with lipophilic compds.

L40 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1999:803131 HCAPLUS

DN 132:51492

TI Softening finish compositions with good biodegradability

IN Kato, Toru; Ohtawa, Yasunori; Kaneko, Yohei

PA Kao Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D06M013-352

ICS D06M013-402; D06M015-53

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 40

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 11350348 | A2   | 19991221 | JP 1998-162328  | 19980610 |

OS MARPAT 132:51492

AB Title compns. comprise (A) nonionic compds. having .gtoreq.1 C5-36 alkyl or alkenyl group and .gtoreq.1 ester bond and (B) amino compds. having .gtoreq.1 C5-36 alkyl or alkenyl group, which may contain ester bond, amide bond, or ether bond, or salts thereof. Thus, a cotton towel was washed and treated with a compn. comprising 4.5% reaction product of ethoxylated pentaerythritol and hardened beef tallow fatty acid, 0.5% N-(3-hardened beef tallow alkanoylaminopropyl)-N,N-dimethylamine, and HCl giving good softness.

ST biodegradable softening finish compn nonionic compd; amino compd cotton towel softener; ethoxylated pentaerythritol hardened beef tallow fatty acid reaction product; methylamine beef tallow deriv hydrochloric acid salt softener compn

IT Biodegradable materials

Fabric softeners

(biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT. Amines, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT **Surfactants**  
 (biodegradable; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Textiles  
 (cotton, towels; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Acrylic fibers, miscellaneous  
 RL: MSC (Miscellaneous)  
 (fabrics, jerseys; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Polyoxyalkylenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (hardened beef tallow derives.; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT **Surfactants**  
 (nonionic; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Polyoxyalkylenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (reaction products with hardened beef tallows; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Tallow  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (reaction products, hardened; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Amines, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (salts; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Biodegradable materials  
 (surfactants; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

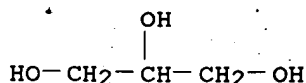
IT **Fatty acids, uses**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (tallow, reaction products; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT Household furnishings  
 (towels; biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT **56-81-5D, Glycerol**, reaction products with hardened beef tallow **fatty acids, ethoxylated**  
 25322-68-3D, Polyethylene glycol, reaction products with hardened beef tallows 42503-45-7D, Pentaerythritol ethoxylate, reaction products with hardened beef tallow **fatty acids** 58546-86-4D, USES (Uses)  
 1,3-Propanediamine hydrochloride, hardened beef tallow alkyl derives. 65086-96-6D, hardened beef tallow alkyl derives. 111413-46-8  
 176158-74-0D, hardened beef tallow alkanoyl derives. 252850-69-4D, hardened beef tallow alkanoyl derives. 252850-70-7 252850-71-8D, reaction products with hardened beef tallow **fatty acids**  
 252850-72-9D, hardened beef tallow alkanoyl derives.  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

IT **56-81-5D, Glycerol**, reaction products with hardened beef tallow **fatty acids, ethoxylated**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (biodegradable fabric softener compns. comprising nonionic compds. and amino compds.)

RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1999:733026 HCAPLUS  
 DN 131:338649  
 TI Acaricidal carpet cleaning composition comprising esterified and non-esterified **ethoxylated glycerol** mixture  
 IN Zocchi, Germaine; Kong, Betty; Mondin, Myriam; Mahieu, Marianne  
 PA Colgate-Palmolive Co., USA  
 SO U.S., 9 pp., Cont.-in-part of U.S. Ser. No. 938,685.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C11D003-48  
 ICS C11D003-50; C11D003-60  
 NCL 510280000  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 24

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | US 5985814   | A    | 19991116 | US 1998-109656  | 19980702 |
|      | ZA 9405565   | A    | 19960129 | ZA 1994-5565    | 19940727 |
| →    | US 5610130   | A    | 19970311 | US 1996-650211  | 19960520 |
| EO   | US 5942482   | A    | 19990824 | US 1997-938685  | 19970926 |
| PRAI | US 1993-102314   |      | 19930804 |                 |          |
|      | US 1993-155317   |      | 19931122 |                 |          |
|      | US 1994-192118   |      | 19940203 |                 |          |
|      | US 1995-523562   |      | 19950905 |                 |          |
|      | US 1996-553183   |      | 19960212 |                 |          |
|      | US 1996-671471   |      | 19960628 |                 |          |
|      | US 1997-938685   |      | 19970926 |                 |          |
|      | US 1994-228538   |      | 19940415 |                 |          |
|      | US 1995-381606   |      | 19950130 |                 |          |
| OS   | MARPAT 131:338649  |      |          |                 |          |
| AB   | An improvement is described in the carpet compns. which is esp. effective in killing dust mites, contains an anionic detergent, an <b>ethoxylated glycerol</b> type compd., a hydrocarbon ingredient, at least one cosurfactant, an acaricidal agent, and water. The carpet cleaning formulation contained deionized water 80.93, C14-17 sodium paraffin sulfonate 3.92, esterified polyethoxy ether 1.15, magnesium sulfate heptahydrate 1.10, diethylene glycol monobutyl ether 2.00, stripped coconut oil fatty acids 0.37, 38% caustic soda 0.030, N-silicate (1:3.26) 0.20, perfume 0.21, hydrocarbon propellant mixt. 10.00 and benzyl benzoate 0.09%. |      |          |                 |          |
| ST   | acaricidal carpet cleaning <b>ethoxylated glycerol</b>   |      |          |                 |          |
| IT   | Sulfonic acids, uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(C13-17-alkanesulfonic, sodium salts; acaricidal carpet cleaning compn. comprising esterified and nonesterified <b>ethoxylated glycerol</b> mixt.)  |      |          |                 |          |
| IT   | Aldehydes, uses<br>RL: BAC (Biological activity or effector, except adverse); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)<br>(C6-14; acaricidal carpet cleaning compn. comprising esterified and nonesterified <b>ethoxylated glycerol</b> mixt.)   |      |          |                 |          |
| IT   | Fatty acids, uses<br>RL: MOA (Modifier or additive use); USES (Uses)<br>(C8-22; acaricidal carpet cleaning compn. comprising esterified and nonesterified <b>ethoxylated glycerol</b> mixt.)   |      |          |                 |          |
| IT   | Acaricides<br>Carpets<br>Detergents  |      |          |                 |          |

Propellants (sprays and foams)  
**Surfactants**  
 (acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

IT Silicates, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

IT **Surfactants**  
 (anionic; acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

IT Ethers, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (glycol; acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

IT 29387-86-8, Propylene glycol monobutyl ether  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

IT 94-47-3, Phenyl ethyl benzoate 99-49-0, Carvone 100-52-7, Benzaldehyde, uses 118-55-8, Phenyl salicylate 119-36-8, Methyl salicylate 120-51-4, Benzyl benzoate 5392-40-5, Citral  
 RL: BAC (Biological activity or effector, except adverse); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

IT 98-11-3D, Benzenesulfonic acid, C9-15 alkyl derivs., sodium salts 111-76-2, Ethylene glycol monobutyl ether 112-34-5, Diethylene glycol monobutyl ether 143-22-6, Triethylene glycol monobutyl ether 1309-48-4, Magnesium oxide (MgO), uses 1320-67-8, Propylene glycol monomethyl ether 7487-88-9, Sulfuric acid magnesium salt (1:1), uses 7786-30-3, Magnesium chloride (MgCl2), uses 10034-99-8, Magnesium sulfate heptahydrate 25498-49-1, TriPropylene glycol monomethyl ether **31694-55-0** 34590-94-8, DiPropylene glycol monomethyl ether 35884-42-5, DiPropylene glycol monobutyl ether 55934-93-5, TriPropylene glycol monobutyl ether 80763-10-6, Propylene glycol mono-tert-butyl ether  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

RE.CNT 13  
 RE  
 (1) Anon; WO 89/12673 1989 HCAPLUS  
 (2) Bischoff; US 4666940 1987 HCAPLUS  
 (3) Chasin; US 4313847 1982 HCAPLUS  
 (4) Gauthier-Fournier; US 5529713 1996 HCAPLUS  
 (5) Mattox; US 4954338 1990 HCAPLUS  
 (6) Naik; US 4737520 1988 HCAPLUS  
 (7) Nonn; US 4564632 1986 HCAPLUS  
 (8) Pujol; US 5403509 1995 HCAPLUS  
 (9) Steltenkamp; US 4804683 1989 HCAPLUS  
 (10) Steltenkamp; US 5258408 1993 HCAPLUS  
 (11) Thomas; US 5610130 1997 HCAPLUS  
 (12) Zocchi; US 5095066 1992 HCAPLUS  
 (13) Zocchi; US 5719114 1998 HCAPLUS

IT **31694-55-0**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (acaricidal carpet cleaning compn. comprising esterified and nonesterified **ethoxylated glycerol** mixt.)

RN 31694-55-0 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.,.alpha.'-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



monostearate co-softener)

IT Quaternary ammonium compounds, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (N,N,N-tris(hydroxyethyl)-N-Me, di(tallow esters), methosulfates;  
 stable rinse-cycle fabric softener compn. with **glycerol**  
 monostearate co-softener)

IT Fabric softeners  
 (N,N,N-tris(hydroxyethyl)-N-methylammonium salts, di(tallow esters),  
 methosulfates; stable rinse-cycle fabric softener compn. with  
**glycerol** monostearate co-softener)

IT **Fatty acids**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (esters, ditallow esters with triethanolamine, Me-quaternized,  
 methosulfates; stable rinse-cycle fabric softener compn. with  
**glycerol** monostearate co-softener)

IT Polyoxyalkylene's, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (monoethers with C13-15 alcs., **surfactants**; stable  
 rinse-cycle fabric softener compn. with **glycerol** monostearate  
 co-softener)

IT **Surfactants**  
 (nonionic, **ethoxylated** fatty alcs.; stable rinse-cycle fabric  
 softener compn. with **glycerol** monostearate co-softener)

IT **31566-31-1, Glycerol monostearate**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (stable rinse-cycle fabric softener compn. with **glycerol**  
 monostearate co-softener)

IT 25322-68-3D, Polyethylene glycol, monoethers with C13-15 alcs.  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**surfactants**; stable rinse-cycle fabric softener compn. with  
**glycerol** monostearate co-softener)

RE.CNT 4

RE

- (1) Chang, N; US 5066414 A 1991 HCAPLUS
- (2) Henkel KGAA; DE 19623764 A 1997 HCAPLUS
- (3) Hoechst A; EP 0691396 A 1996 HCAPLUS
- (4) Mastrull, J; US 5747108 A 1998

IT **31566-31-1, Glycerol monostearate**

RL: TEM (Technical or engineered material use); USES (Uses)  
 (stable rinse-cycle fabric softener compn. with **glycerol**  
 monostearate co-softener)

RN 31566-31-1 HCAPLUS

CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX  
 NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

HO2C-(CH2)16-Me

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH2-CH-CH2-OH



AN 1998:414717 HCAPLUS

DN 129:69158

TI Light-duty liquid cleaning compositions comprising partially esterified polyhydric alcohol solubilizing agents

IN Adamy, Steven; Bedi, Sat; Mehreteab, Ammanuel; Thomas, Barbara

PA Colgate-Palmolive Co., USA

SO U.S., 6 pp. Cont.-in-part of U.S. 5,476,614.

CODEN: USXXAM

DT Patent

LA English

IC ICM C11D001-83

ICS C11D001-94

NCL 510235000

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 3

|      | PATENT NO.  | KIND  | DATE     | APPLICATION NO. | DATE     |
|------|---|---|----------|-----------------|----------|
| PI   | US 5767050  | A   | 19980616 | US 1995-540636  | 19951011 |
|      | US 5476614  | A   | 19951219 | US 1995-373811  | 19950117 |
|      | WO 9622347  | A1  | 19960725 | WO 1996-US157   | 19960116 |
|      | W:  | AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, |          |                 |          |
|      | RW:   | KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |          |                 |          |
|      | AU 9646947  | A1  | 19960807 | AU 1996-46947   | 19960116 |
| PRAI | US 1995-373811  |   | 19950117 |                 |          |
|      | US 1995-540636  |   | 19951011 |                 |          |
|      | WO 1996-US157   |   | 19960116 |                 |          |
| OS   | MARPAT 129:69158  |   |          |                 |          |
| AB   | A high-foaming, light-duty, liq. detergents with good mildness to the human skin are based on ethoxylated C8-18 alkyl ether sulfate anionic surfactants and contain ethoxylated, partially esterified polyols as biodegradable solubilizing agents.   |   |          |                 |          |
| ST   | liq anionic detergent biodegradable solubilizing agent; polyol ethoxylated ester solubilizing agent detergent   |   |          |                 |          |
| IT   | <b>Coco fatty acids</b><br>RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)<br>(esters with polyethylene glycol ether with <b>glycerol</b> (3:1), Levenol F200; light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified <b>ethoxylated</b> polyhydric alc. solubilizing agents)      |   |          |                 |          |
| IT   | <b>Tallow fatty acids</b><br>RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)<br>(esters with polyethylene glycol ether with <b>glycerol</b> (3:1), Levenol V-501/2; light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified <b>ethoxylated</b> polyhydric alc. solubilizing agents) |   |          |                 |          |
| IT   | <b>Polyhydric alcohols</b><br>RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)<br>(ethoxylated, fatty esters; light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified ethoxylated polyhydric alc. solubilizing agents)   |   |          |                 |          |
| IT   | <b>Polyoxyalkylenes, uses</b><br>RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)<br>( <b>glycerol</b> ethers, <b>fatty acid</b> esters; light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified <b>ethoxylated</b> polyhydric alc. solubilizing agents)                             |   |          |                 |          |

IT. Biodegradable materials  
Liquid **detergents**  
Solubilizers  
(light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified ethoxylated polyhydric alc. solubilizing agents)

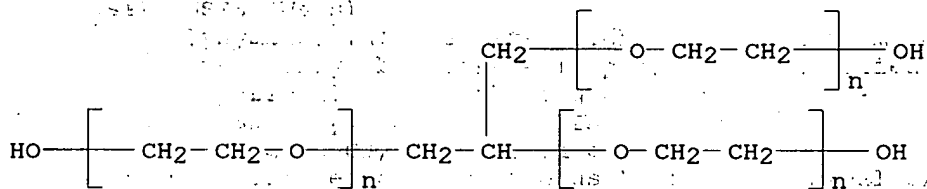
IT Ethoxylated alcohols  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyhydric, fatty esters; light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified ethoxylated polyhydric alc. solubilizing agents)

IT 25322-68-3D, **glycerol ethers, fatty acid**  
esters **31694-55-0D, fatty acid** esters  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified **ethoxylated** polyhydric alc. solubilizing agents)

IT 9004-82-4  
RL: TEM (Technical or engineered material use); USES (Uses)  
(light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified ethoxylated polyhydric alc. solubilizing agents)

IT **31694-55-0D, fatty acid** esters  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(light-duty high-foaming liq. cleaning compns. contg. biodegradable partially esterified ethoxylated polyhydric alc. solubilizing agents)

RN 31694-55-0 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
AN 1998:379207 HCAPLUS  
DN 129:55768  
TI Procedure for separation of glycerin from reaction mixtures containing glycerin and fatty acid amides  
IN Oftring, Alfred; Oetter, Guenter; Baur, Richard; Borzyk, Oliver; Burkhart, Bernd; Ott, Christian; Aus dem Kahmen, Martin  
PA BASF A.-G., Germany  
SO Ger. Offen., 6 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM C07C231-24  
ICS C07C233-05; C07C233-09; C07C233-18; C07C231-02  
ICA C11D001-66; B01F017-46; B01F017-22; C07C233-14  
CC 46-3 (**Surface Active Agents and Detergents**)

FAN.CNT 2

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|-------------|------|----------|------------------|----------|
| PI | DE 19650107 | A1   | 19980604 | DE 1996-19650107 | 19961203 |
|    | WO 9824758  | A2   | 19980611 | WO 1997-EP6750   | 19971202 |
|    | WO 9824758  | A3   | 19980820 |                  |          |

W: BR, CN, ID, JP, KR, US  
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 946498 A2 19991006 EP1997-952862 19971202  
 R: DE, FR, GB, IT  
 US 6034257 A 20000307 US 1999-308669 19990603  
 PRAI DE 1996-19650107 19961203  
 DE 1996-19650151 19961203  
 WO 1997-EP6750 19971202

AB The title reaction mixts., which are commonly encountered in the large-scale aminolysis of glycerides, are acidified with aq. acids to pH 1-7 and the phases sepd. into a glycerol-contg. aq. phase and fatty amides-contg. org. phase. For example, a mixt. of 348.9 g MeNHCH<sub>2</sub>CH<sub>2</sub>OH and 27.0 g NaOMe (30% in MeOH) was treated over 80 min at 80.degree. with 1305.0 g rapeseed oil, the mixt. was stirred for 15 min, dild. with 1000 mL H<sub>2</sub>O, heating was discontinued and the whole acidified with HCl to pH 3-4 and the phases sepd. The org. phase was washed twice with 750 mL H<sub>2</sub>O and dewatered by distn. in vacuo to give rapeseed oil N-methylethanolamide as a viscous, brown oil. This (426.5 g) was combined with 9.0 g NaOMe, dried for 2 h at 120.degree./16 mbar and ethoxylated at that temp. with 132.0 g ethylene oxide (EO) (max pressure 3.5 bar), cooled to 80.degree. and evacuated to give viscous, brown oil free from EO, having OH no. 95 mg KOH/g and contg. 3.3% polyethylene glycol.

ST glycerin sepn fatty amide manuf; glyceride amidation glycerol sepn; rapeseed oil amidation methylethanolamine glycerol sepn; ethoxylation rapeseed oil N methylethanolamide

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
 (ethers with fatty amides; procedure for sepn. of glycerin from reaction mixts. contg. glycerin and **fatty acid** amides)

IT Coco amides

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (ethoxylated; procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (fatty amido group-terminated, rapeseed oil, **ethoxylated**; procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)

IT Amides, preparation

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (fatty, **alkoxylated**, rapeseed oil, **ethoxylated**; procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)

IT Nonionic surfactants

(procedure for sepn. of glycerin from **fatty acid** amides manufd. for use as)

IT Glycerides, processes

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process)  
 (rape-oil, aminolysis with amines; procedure for sepn. of glycerin from reaction mixts. contg. glycerin and **fatty acid** amides)

IT Rape oil

RL: IMF (Industrial manufacture); PREP (Preparation)  
 (reaction products, with amines, **ethoxylated**; procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)

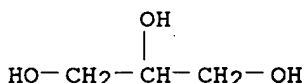
IT 124-41-4, Sodium methoxide

RL: CAT (Catalyst use); USES (Uses)  
 (amidation and **ethoxylation** catalyst; procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)

IT 56-81-5, Glycerol, processes

RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)  
 (procedure for sepn. of glycerin from reaction mixts. contg. glycerin

and **fatty acid** amides)  
 IT 74-89-5DP, Methylamine, amides with rapeseed oil **fatty acids, ethoxylated** 109-83-1DP, N-Methylethanolamine, amides with rapeseed oil **fatty acids, ethoxylated** 111-75-1DP, N-Butylethanolamine, amides with rapeseed oil **fatty acids, ethoxylated** 25322-68-3DP, Polyethylene glycol, ethers with fatty amides  
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
 (procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)  
 IT 56-81-5, **Glycerol**, processes  
 RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)  
 (procedure for sepn. of **glycerin** from reaction mixts. contg. **glycerin** and **fatty acid** amides)  
 RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1998:210838 HCAPLUS  
 DN 128:231908  
 TI Microemulsion or liquid-crystal all-purpose liquid disinfecting and cleaning compositions  
 IN Blanvalet, Claude; Mondin, Myriam; Broze, Guy; Thomas, Barbara; Lambremont, Yves  
 PA Colgate-Palmolive Co., USA  
 SO PCT Int. Appl., 40 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C11D017-00  
 ICS C11D003-20; C11D001-83; C11D001-14; C11D001-74  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 24

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 9813468  | A1   | 19980402 | WO 1997-US17401 | 19970926 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| US 5861367  | A    | 19990119 | US 1996-722514  | 19960927 |
| AU 9745991  | A1   | 19980417 | AU 1997-45991   | 19970926 |
| AU 723559   | B2   | 20000831 |                 |          |
| EP 934400   | A1   | 19990811 | EP 1997-944515  | 19970926 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI, RO   |      |          |                 |          |
| PRAI US 1996-722514   |      | 19960927 |                 |          |
| US 1993-102314  |      | 19930804 |                 |          |
| US 1993-155317  |      | 19931122 |                 |          |
| US 1994-192118  |      | 19940203 |                 |          |
| US 1994-336936  |      | 19941115 |                 |          |
| US 1996-699299  |      | 19960819 |                 |          |
| WO 1997-US17401   |      | 19970926 |                 |          |
| AB Liq.-cryst. or microemulsion compns. that are more environmentally   |      |          |                 |          |

friendly and are esp. effective in the removal of oily and greasy soil contain anionic surfactant 0.1-20, **glycerol alkoxylates** and(or) their carboxylate esters 0.1-20,  $\text{HCO}(\text{CH}_2)_n\text{CHO}$  0-10, water-insol. hydrocarbon or perfume 0.1-10, and cosurfactant 0.1-50%, with the balance being water. These compns. are effective in the absence of polyphosphate or other (in)org. builder salts and grease-removing solvents.

ST **glycerol alkoxylate** microemulsion detergent  
disinfectant; phosphate free microemulsion detergent disinfectant; anionic surfactant microemulsion detergent disinfectant; hydrocarbon microemulsion detergent grease removing; perfume microemulsion detergent grease removing; aliph dialdehyde microemulsion detergent disinfectant; liq cryst disinfecting detergent; carboxylate **glycerol alkoxylate** microemulsion detergent

IT Alkanesulfonates  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(C13-17, sodium salts; microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT Aliphatic aldehydes  
RL: TEM (Technical or engineered material use); USES (Uses)  
(di-; microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT Coco **fatty acids**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(esters with polyethylene glycol ether with **glycerol** (3:1) Levenol F-200; microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT Carboxylic acids, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(esters, with **alkoxylated glycerol**; microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT Polyoxyalkylenes, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(ethers, with **glycerol**; microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT Anionic **surfactants**  
Disinfectants  
Liquid crystals  
Liquid **detergents**  
Microemulsions  
Perfumes  
(microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

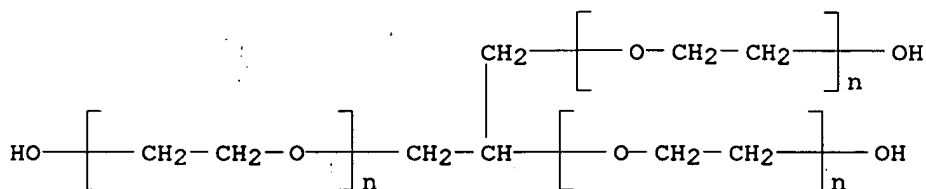
IT Hydrocarbons, uses  
Terpenes, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT **31694-55-0D**, Polyethylene glycol **glycerol** ether, esters with coco **fatty acids**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

IT **31694-55-0D**, Polyethylene glycol **glycerol** ether, esters with coco **fatty acids**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(microemulsion or liq.-cryst. all-purpose liq. disinfecting and cleaning compns.)

RN **31694-55-0** HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.,.alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1998:204302 HCAPLUS

DN 128:231902

TI Microemulsion liquid crystal and cleaning compositions comprising esterified and non-esterified **ethoxylated glycerol** mixture and sulfoxy anionic surfactant

IN Mondin, Myriam; Loth, Myriam; Broze, Guy; Mehreteab, Ammanuel; Thomas, Barbara; Adamy, Steven; Bala, Frank, Jr.

PA Colgate-Palmolive Co., USA

SO U.S., 17 pp. Cont.-in-part of U.S. 5,593,958.

CODEN: USXXAM

DT Patent

LA English

IC ICM C11D017-00

ICS C11D001-74; C11D001-83

NCL 510417000

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 24

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | US 5731281     | A    | 19980324 | US 1996-714906  | 19960917 |
|      | ZA 9405565     | A    | 19960129 | ZA 1994-5565    | 19940727 |
|      | US 5593958     | A    | 19970114 | US 1995-385212  | 19950205 |
|      | US 5610130     | A    | 19970311 | US 1996-650211  | 19960520 |
| PRAI | US 1993-102314 |      | 19930804 |                 |          |
|      | US 1993-155317 |      | 19931122 |                 |          |
|      | US 1994-192118 |      | 19940203 |                 |          |
|      | US 1995-385212 |      | 19950205 |                 |          |
|      | US 1994-228538 |      | 19940415 |                 |          |
|      | US 1995-381606 |      | 19950130 |                 |          |

OS MARPAT 128:231902

AB The title compns. effective in the removal of oily and greasy soil contain an anionic detergent, an **ethoxylated glycerol** type compd., a hydrocarbon ingredient, at least one cosurfactant, and water which comprises the use of a water-insol. odoriferous perfume as the essential hydrocarbon ingredient in a proportion sufficient to form a dil. o/w microemulsion compn. contg. 1-20% anionic surfactants, 0.1-50% cosurfactant(s), 0.1-20% **ethoxylated glycerol** compds., 0.4-10% perfume and the balance being water. A degreasing compn. comprised Na C13-17 paraffinsulfonate 4.7, Levenol F-200 2.3, diethylene glycol monobutyl ether 4, fatty acid 0.75, MgSO4.7H2O 2.2, perfume (contg. 25% terpenes) 0.8 and water to 100%.

ST microemulsion liq crystal cleaning compn; **alkoxylated**

IT **glycerin** microemulsion degreasing compn

IT **Ethoxylated** alcohols

RL: TEM (Technical or engineered material use); USES (Uses)  
(C14-15; microemulsion liq. crystal and cleaning compns. comprising esterified and non-esterified **ethoxylated glycerol** mixt. and sulfoxy anionic surfactant)

IT Carboxylic acids, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(dicarboxylic; microemulsion liq. crystal and cleaning compns. comprising esterified and non-esterified **ethoxylated glycerol** mixt. and sulfoxy anionic surfactant)

### IT. Coco fatty acids

RL: TEM (Technical or engineered material use); USES (Uses)  
(esters with polyethylene glycol ether with **glycerol** (3:1),  
Levenol F 200; microemulsion liq. crystal and cleaning comps.  
comprising esterified and non-esterified **ethoxylated**  
**glycerol** mixt. and sulfoxy anionic **surfactant**)

IT Tallow **fatty acids**

RL: TEM (Technical or engineered material use); USES (Uses)  
(esters with polyethylene glycol ether with **glycerol** (3:1),  
Levenol V 501/2; microemulsion liq. crystal and cleaning compns.  
comprising esterified and non-esterified **ethoxylated**  
**glycerol** mixt. and sulfoxy anionic **surfactant**)

## IT Anionic surfactants

### Degreasing agents

## Detergents

## Liquid crystals

(microemulsion liq. crystal and cleaning compns. comprising esterified and non-esterified **ethoxylated glycerol** mixt. and sulfoxy anionic **surfactant**)

## IT Alkoxy alcohols

### Carboxylic acids, uses

Polyoxyalkylenes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(microemulsion liq. crystal and cleaning compns. comprising esterified and non-esterified **ethoxylated glycerol mixt.** and sulfoxy anionic **surfactant**)

## IT Tallow fatty acids

RL: TEM (Technical or engineered material use); USES (Uses)

(soap; microemulsion liq. crystal and cleaning comps comprising esterified and non-esterified **ethoxylated** **ycerol** mixt. and sulfoxy anionic **surfactant**)

IT 71-41-0, 1-Pent

71-41-0, 1-Pentanol, uses 79-09-4, Propionic acid, uses 79-10-7, Acrylic acid, uses 110-15-6, Succinic acid, uses 110-94-1, Glutaric acid 111-76-2, Ethylene glycol monobutyl ether 112-34-5, Diethylene glycol monobutyl ether 112-40-3, Dodecane 112-59-4, Diethylene glycol monohexyl ether 124-04-9, Adipic acid, uses 143-22-6, TriEthylene glycol monobutyl ether 151-21-3, Sodium lauryl sulfate, uses 1320-67-8, Propylene glycol monomethyl ether 1639-66-3, Dioctyl sodiosulfosuccinate 3097-08-3, Magnesium lauryl sulfate 7487-88-9, Magnesium sulfate, uses 25322-68-3, PEG300 25498-49-1, TriPropylene glycol monomethyl ether 29911-28-2 **31694-55-0D**, Polyethylene glycol **glycerin** ether, coco alkyl ethers 34590-94-8, Dipropylene glycol monomethyl ether 55934-93-5, Tripropylene glycol monobutyl ether 80763-10-6, Propylene glycol mono-tert-butyl ether

RL: TEM (Technical or engineered material use); USES (Uses)

(microemulsion liq. crystal and cleaning compns. comprising esterified and non-esterified **ethoxylated glycerol mixt.** and sulfoxy anionic **surfactant**)

IT 31694-55-0D, Po

31694-55-0D, Polyethylene glycol glycerin ether, coco alkyl ethers

RL: TEM (Technical or engineered material use); USES (Uses)

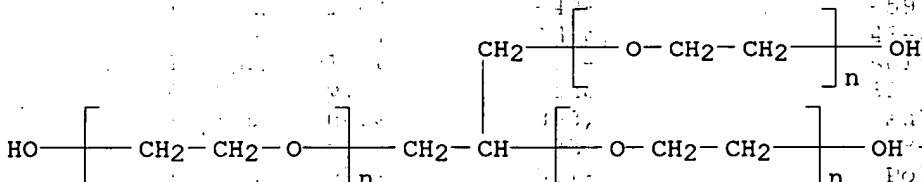
(microemulsion liq. crystal and cleaning comps. comprising esterified and non-esterified **ethoxylated glycerol mixt.** and sulfoxy anionic **surfactant**)

RN 31694-55-0. HCAPLUS

Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.,.alpha.'-1,2,3-

propanetriyltri

propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



AN 1997:613824 HCAPLUS

DN 127:236027

TI Cleaning compositions comprising mixtures of partially esterified, fully esterified, and non-esterified ethoxylated polyhydric alcohols and N-alkyl aldonamide surfactant

IN Durbut, Patrick

PA Colgate-Palmolive Co., USA

SO U.S., 10 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C11D017-00

ICS C11D001-74; C11D003-32

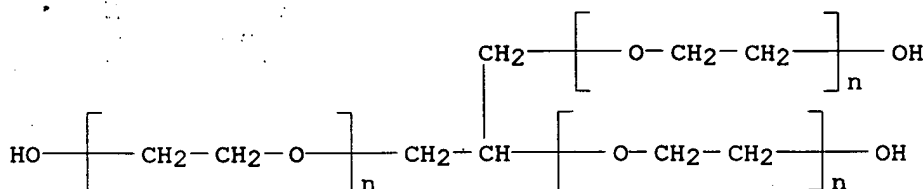
NCL 510365000

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | US 5665689  | A    | 19970909 | US 1996-708379  | 19960904 |
|      | WO 9810048  | A2   | 19980312 | WO 1997-US15185 | 19970828 |
|      | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM   |      |          |                 |          |
|      | RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|      | AU 9742396  | A1   | 19980326 | AU 1997-42396   | 19970828 |
| PRAI | US 1996-708379  |      | 19960904 |                 |          |
|      | WO 1997-US15185   |      | 19970828 |                 |          |
| AB   | A cleaning compn. contains 0.1-10% an N-alkyl aldonamide surfactant such as N-octyl ribonamide, 0.5-40% partially esterified <b>ethoxylated glycerol</b> surfactants such as Levanol F-200, 0.5-8% solubilizer and balance H2O.   |      |          |                 |          |
| ST   | alkyl aldonamide cleaning compn; <b>ethoxylated glycerol</b> surfactant cleaning compn; ester <b>ethoxylated glycerol</b> surfactant; water based cleaning compn surfactant   |      |          |                 |          |
| IT   | <b>Detergents</b><br>(cleaning compns. comprising mixts. of partially esterified, fully esterified, and non-esterified ethoxylated polyhydric alcs. and N-alkyl aldonamide <b>surfactant</b> )  |      |          |                 |          |
| IT   | <b>Coco fatty acids</b><br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(esters with polyethylene glycol ether with <b>glycerol</b> (3:1); cleaning compns. comprising mixts. of partially esterified, fully esterified, and non-esterified <b>ethoxylated</b> polyhydric alcs. and N-alkyl aldonamide <b>surfactant</b> )  |      |          |                 |          |
| IT   | <b>31694-55-0D</b> , Polyethylene glycol <b>glycerin</b> ether, esters<br>98241-30-6, N-Decyl ribonamide 102404-77-3, N-Octyl ribonamide<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(cleaning compns. comprising mixts. of partially esterified, fully esterified, and non-esterified <b>ethoxylated</b> polyhydric alcs. and N-alkyl aldonamide <b>surfactant</b> ) |      |          |                 |          |
| IT   | <b>31694-55-0D</b> , Polyethylene glycol <b>glycerin</b> ether, esters<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(cleaning compns. comprising mixts. of partially esterified, fully esterified, and non-esterified <b>ethoxylated</b> polyhydric alcs. and N-alkyl aldonamide <b>surfactant</b> )   |      |          |                 |          |
| RN   | 31694-55-0 HCAPLUS  |      |          |                 |          |
| CN   | Poly(oxy-1,2-ethanediyl), .alpha., .alpha.', .alpha.''-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)]   |      |          |                 |          |





L40 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1997:124901 HCAPLUS

DN 126:200935

TI Cleaning composition in microemulsion or liquid crystal form comprising mixture of partially esterified, fully esterified and non-esterified polyhydric alcohols

IN Mondin, Myriam; Loth, Myriam; Broze, Guy; Thomas, Barbara; Adamy, Steven; Bala, Frank, Jr.; Mehreteab, Ammanuel

PA Colgate-Palmolive Co., USA

SO U.S., 13 pp. Cont.-in-part of U.S. Ser. No. 182,523, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C11D017-00

ICS C11D001-74; C11D001-83

NCL 510417000

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 24

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | US 5599785   | A    | 19970204 | US 1994-336932  | 19941115 |
|      | ZA 9405565   | A    | 19960129 | ZA 1994-5565    | 19940727 |
|      | CA 2205404   | AA   | 19960523 | CA 1995-2205404 | 19951109 |
|      | WO 9615217   | A1   | 19960523 | WO 1995-US14583 | 19951109 |
|      | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT  |      |          |                 |          |
|      | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |      |          |                 |          |
|      | AU 9641059   | A1   | 19960606 | AU 1996-41059   | 19951109 |
|      | AU 696196  | B2   | 19980903 |                 |          |
|      | EP 791049  | A1   | 19970827 | EP 1995-939106  | 19951109 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE  |      |          |                 |          |
|      | BR 9509682   | A    | 19970930 | BR 1995-9682    | 19951109 |
|      | CN 1170433   | A    | 19980114 | CN 1995-196880  | 19951109 |
|      | HU 77481   | A2   | 19980528 | HU 1997-2416    | 19951109 |
|      | EP 994180  | A1   | 20000419 | EP 1999-204486  | 19951109 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE  |      |          |                 |          |
|      | US 5610130   | A    | 19970311 | US 1996-650211  | 19960520 |
| PRAI | US 1993-102314   |      | 19930804 |                 |          |
|      | US 1993-155317   |      | 19931122 |                 |          |
|      | US 1994-182523   |      | 19940118 |                 |          |
|      | US 1994-228538   |      | 19940415 |                 |          |
|      | US 1994-336932   |      | 19941115 |                 |          |
|      | US 1994-336936   |      | 19941115 |                 |          |
|      | US 1995-381606   |      | 19950130 |                 |          |
|      | US 1995-385212   |      | 19950205 |                 |          |
|      | EP 1995-939106   |      | 19951109 |                 |          |
|      | WO 1995-US14583  |      | 19951109 |                 |          |
| OS   | MARPAT 126:200935  |      |          |                 |          |
| AB   | The liq. crystal compn. or the microemulsion compn., which is esp. effective in the removal of oily and greasy soil and leaving a shiny appearance, contains an anionic detergent, an <b>ethoxylated glycerol</b> type compd., a hydrocarbon ingredient, and H2O which |      |          |                 |          |

comprises the use of a water-insol. odoriferous perfume as the essential hydrocarbon ingredient in proportions sufficient to form a dil. o/w microemulsion compn. contg. 1-20% an anionic detergent, 0.1-50% cosurfactant, 0.1-10% **ethoxylated glycerol** type compd., 0-1.0% tri-alkyl citrate, 0.4-10% perfume and the balance being H2O. A typical o/w emulsion comprises coco fatty acid 4, Na C13-17 paraffin sulfonate 20.75, Levenol F-200 12, diethylene glycol monobutyl ether 20, perfume 12.5%, and the balance water.

ST anionic surfactant all purpose cleaner; **ethoxylated glycerol** all purpose cleaner; perfume all purpose cleaner; ether cosurfactant all purpose cleaner

IT Sulfonates  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (alkenesulfonates, C13-17, sodium salts, **surfactant**; cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT Perfumes  
 (cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT Coco fatty acids  
**Fatty acids, uses**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT **Detergents**  
 (cleaning compns.; in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT Coco fatty acids  
**Tallow fatty acids**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (esters with polyethylene glycol ether with **glycerol** (3:1); cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT Alkenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (sulfonates, C13-17, sodium salts, **surfactant**; cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT **Fatty acid esters**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (tallow, esters with polyethylene glycol ether with **glycerol** (3:1); cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT 71-41-0, 1-Pentanol, uses 77-94-1, Tri-n-butyl citrate 112-34-5, Diethylene glycol monobutyl ether 112-40-3, Dodecane 3097-08-3, Magnesium lauryl sulfate **31694-55-0D**, fatty ester derivs.  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

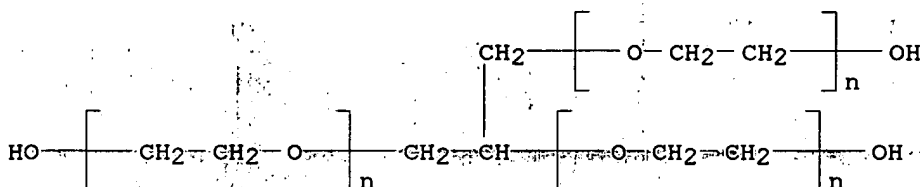
IT 79-09-4, Propanoic acid, uses 79-10-7, 2-Propenoic acid, uses 110-94-1, Pentanedioic acid 111-76-2, Ethylene glycol monobutyl ether 143-22-6, Triethylene glycol monobutyl ether 29387-86-8, Propylene glycol monobutyl ether 29911-28-2 55934-93-5, Tripropylene glycol monobutyl ether 80763-10-6, Propylene glycol tert-butyl ether  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (cosurfactant; cleaning compn. in microemulsion or liq. crystal form comprising mixt. of partially esterified, fully esterified and non-esterified polyhydric alcohols)

IT **31694-55-0D**, fatty ester derivs.

RL: TEM (Technical or engineered material use); USES (Uses)  
(cleaning compn. in microemulsion or liq. crystal form comprising mixt.  
of partially esterified, fully esterified and non-esterified polyhydric  
alcohols)

RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha.', .alpha.''-1,2,3-  
propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:659273 HCAPLUS

DN 125:279256

TI Manufacture of high-density, granular detergent compositions

IN Krings, Peter; Pastura, Amerigo; Behler, Ansgar; Greger, Manfred;

Foerster, Thomas; Boecker, Monika; Sandkuehler, Peter; Pfennig-Dahmen,

Renate;

PA Henkel Kgaa, Germany

SO Ger. Offen. 16 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C11D001-83

ICS C11D017-00

CC 46-5 (Surface Active Agents and  
Detergents)

FAN.CNT 2

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|--|------|----------|------------------|----------|
| PI   | DE 19509752  | A1   | 19960919 | DE 1995-19509752 | 19950317 |
|      | WO 9629389   | A1   | 19960926 | WO 1996-EP994    | 19960308 |
|      | W: JP, US  |      |          |                  |          |
|      | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |          |
|      | EP 815196  | A1   | 19980107 | EP 1996-906756   | 19960308 |
|      | EP 815196  | B1   | 19990811 |                  |          |
|      | R: AT, BE, DE, ES, FR, GB, IT, NL                                      |      |          |                  |          |
|      | AT 183230  | E    | 19990815 | AT 1996-906756   | 19960308 |
|      | ES 2136391   | T3   | 19991116 | ES 1996-906756   | 19960308 |
| PRAI | DE 1995-19509752   |      | 19950317 |                  |          |
|      | WO 1995-EP4950   |      | 19951214 |                  |          |
|      | WO 1996-EP994  |      | 19960308 |                  |          |

AB Laundry detergent strand or pellet compns. with improved dissolving and rinsing properties are manufd. by extrusion or tableting of premixes comprising solid anionic surfactants, builders and alkalizing agents as solid components and nonionic surfactants as liq. components. The latter components comprise >50% of alkoxylated fatty acid alkyl ethers R1CO2(AO)mR2 [R1 = C5-21 alk(en)yl; R2 = H, C1-6 alkyl; AO = C2-4 alkylene oxide unit; m = 1-60] or esters R3[O(AO)n]CH2CHO[(AO)oR4]CH2O(AO)pR5 [R3-R5 = H, COR6; R6 = C5-21 alk(en)yl; R3 = R4 = R5 .noteq. H; n, o, p = 1-60]. Thus, compns. contg. C12-18 alkylbenzenesulfates, ethoxylated C12-18 fatty acid Me esters, Na soap, polyethylene glycol, zeolite, polycarboxylates, Na water glass, bleach activator, protease, lipase, perfume, and silicone defoamer in H2O had better dissoln. and rinsing properties than control compns. contg. ethoxylated fatty alc. Na salts instead of ethoxylated fatty acid esters.

ST detergent granular high density compn; granular detergent dissolving rate; alkoxylated fatty ester additive granular detergent; anionic nonionic surfactant granular detergent dissoln

IT. **Fatty acids, uses**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (C12-18, ethoxylated, Me, Et and Bu esters; manuf. of high-d., granular  
**detergent compns.**)

IT **Surfactants**  
 (anionic, manuf. of high-d., granular **detergent compns.**)

IT **Detergents**  
 (laundry, granular, high-d.; manuf. of high-d., granular  
**detergent compns.**)

IT **Glycerides, uses**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (mono-, **ethoxylated**, C12-18-soya; manuf. of high-d., granular  
**detergent compns.**)

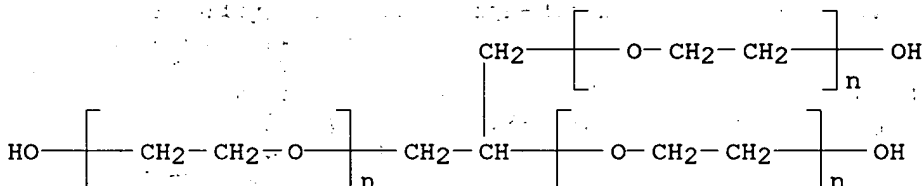
IT **Surfactants**  
 (nonionic, manuf. of high-d., granular **detergent compns.**)

IT 98-11-3D, Benzenesulfonic acid, C11-13 alkyl derivs. 7664-93-9D,  
 Sulfuric acid, esters with C12-18 alcs. 9004-74-4D, Polyethylene glycol  
 methyl ether, esters with C12-18 **fatty acids**  
 9004-77-7D, Polyethylene glycol butyl ether, esters with C12-18  
**fatty acids** 27879-07-8D, Polyethylene glycol ethyl  
 ether, esters with C12-18 **fatty acids**  
**31694-55-0D**, triesters with soya **fatty acids**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of high-d., granular **detergent compns.**)

IT **31694-55-0D**, triesters with soya **fatty acids**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (manuf. of high-d., granular **detergent compns.**)

RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha., .alpha.'-1,2,3-  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:590473 HCAPLUS

DN 125:225160

TI Process for the manufacture of granular detergent compositions comprising  
 nonionic surfactant

IN Donoghue, Scott John; Smith, David John

PA Procter and Gamble Company, USA

SO PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2

DT Patent

LA English

IC ICM C11D001-66  
 ICS C11D001-83; C11D003-37; C11D011-00; C11D017-00; B29B009-00

CC 46-5 (Surface Active Agents and  
**Detergents**)

FAN.CNT 1

|     | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|-----|--|------|----------|-----------------|----------|
| PI  | WO 9623048   | A1   | 19960801 | WO 1996-US527   | 19960105 |
| W:  | AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI |      |          |                 |          |
| RW: | KE, LS, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR,  |      |          |                 |          |

## NE, SN

|            |             |                 |          |
|------------|-------------|-----------------|----------|
| CA 2208675 | AA 19960801 | CA 1996-2208675 | 19960105 |
| AU 9647570 | Al 19960814 | AU 1996-47570   | 19960105 |
| BR 9606932 | A 19971111  | BR 1996-6932    | 19960105 |
| EP 805845  | Al 19971112 | EP 1996-903497  | 19960105 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE

|            |            |                |          |
|------------|------------|----------------|----------|
| ZA 9600506 | A 19960813 | ZA 1996-506    | 19960123 |
| US 5858957 | A 19990112 | US 1997-875257 | 19970923 |

PRAI EP 1995-300490 19950126  
EP 1995-301692 19950314  
WO 1996-US527 19960105

AB A process for manuf. of detergent compns. from a surfactant paste which is a solid at 25.degree. and below, comprises: mixing the paste at a temp. above its softening point, the paste comprising at least 50% of nonionic surfactant; forming the molten paste into drops on a cooling surface; forming solid pastilles by cooling the drops; and removing solidified pastilles from the cooling surface. The surfactants may be one of: **ethoxylated** nonionic surfactants, **glycerol** ethers, glucosamides, **glycerol** amides, **glycerol** esters, fatty acids, fatty acid esters, fatty amides, alkyl polyglycosides, alkyl polyglycol ethers, **ethoxylated** alkyl phenols, and their mixts. A paste comprises preferably a mixt. of polyhydroxy fatty acid amide and an ethoxylated nonionic surfactant in 3:7 to 7:3 ratio and one of polymeric carboxylates, polyethylene glycols, polyaspartates, and polyglutamates as dispersing agents. The process is also suitable for prodn. of pastillated granulated detergent compns. or components. Thus, a C16-18 N-Me glucamide was prepd. in the presence of a C12-14 ethoxylated nonionic surfactant [5 ethylene oxide per mol of alc.]. The surfactant mixt. was mixed with C12-16 alkyl sulfate powder and a hydrogenated fatty acid obtain a paste. Drops of paste of approx. 1 mm diam. were formed on a cooled conveyor belt, and the solidified pastilles were removed from the belt and dusted with zeolite A in a drum mixer. The bulk d. of the finished pastillated compn. was about 450 g/L. The process provides for prodn. of nonionic surfactant-rich pastes and of granular detergents with high surfactant activity and substantially dust free.

ST nonionic surfactant paste manuf granular detergent; ethoxylated alc alkyl sulfate powder surfactant

IT Dispersing agents  
(process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT Zeolites, uses  
RL: NUU (Nonbiological use, unclassified); USES (Uses)  
(A. process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT Amines, uses  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(N-oxides, alkyl and hydroxyalkyl and alkylphenyl derivs.; process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT Fatty acids, uses  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(esters, process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT Alcohols, uses  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(ethoxylated, process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT Amides, uses  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fatty, process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT Detergents  
(granular, process for manuf. of nonionic **surfactant**-rich

pastes and granular **detergent** compns.)

IT **Fatty acids**, uses  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (hydrogenated, process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT **Surfactants**  
 (nonionic, process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT 7664-93-9, Sulfuric acid, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (alkyl derivs.; process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT **56-81-5D, Glycerol**, ethers and esters and amides  
**56-86-0D, Glutamic acid, polymers** 107-21-1D, Ethylene glycol, Ph ethers  
**25322-68-3, Polyethylene glycol** 25608-40-6D, Polyaspartic acid, polymers  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT 98-11-3D, Benzenesulfonic acid, alkyl derivs. 10543-57-4, Tetraacetyl ethylene diamine  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

IT **56-81-5D, Glycerol**, ethers and esters and amides  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (process for manuf. of nonionic **surfactant**-rich pastes and granular **detergent** compns.)

RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1996:388618 HCAPLUS  
 DN 125:118121  
 TI Microemulsion light-duty liquid cleaning compositions  
 IN Erilli, Rita  
 PA Colgate-Palmolive Co, USA  
 SO U.S., 8 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C11D003-30  
 ICS C11D001-62; C11D003-44  
 NCL 252550000  
 CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 4

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|----|------------|------|----------|-----------------|----------|
| PI | US 5523025 | A    | 19960604 | US 1995-392569  | 19950223 |
|    | US 5646104 | A    | 19970708 | US 1995-539925  | 19951006 |
|    | CA 2213626 | AA   | 19960829 | CA 1996-2213626 | 19960220 |
|    | WO 9626262 | A1   | 19960829 | WO 1996-US2203  | 19960220 |

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR  
 RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE,

IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR,  
NE, SN, TD, TG

AU 9649272 A1 19960911 AU 1996-49272 19960220  
AU 698866 B2 19981112  
EP 815194 A1 19980107 EP 1996-905540 19960220

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE

US 6034049 A 20000307 US 1997-893555 19970711

PRAI US 1995-392569 19950223

US 1995-514977 19950814

US 1995-539925 19951006

WO 1996-US2203 19960220

OS MARPAT 125:118121

AB A light-duty liq. microemulsion compn. comprises a mixt. of a paraffin sulfonate and an **ethoxylated** alkyl ether sulfate; a biodegradable compd. of **ethoxylated glyceride** of a palm kernel oil and a trialkyl ether citrate; a cosurfactant; a perfume, essential oil or water insol. hydrocarbon; and water. A compn. contained Na C13-17 paraffin sulfonate 8.7, Na ethoxylated C12-14 alkyl ether sulfate 2.9, D-limonene 6, propylene glycol 5, and Levenol F200.

ST microemulsion light duty cleaning compn

IT Palm kernel oil

RL: TEM (Technical or engineered material use); USES (Uses)

(**ethoxylated glyceride**; microemulsion light-duty liq. cleaning compns.)

IT **Detergents**

(cleaning compns., microemulsion light-duty liq. cleaning compns.)

IT **Fatty acids**, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(coco, esters with polyethylene glycol ether with **glycerol** (3:1), microemulsion light-duty liq. cleaning compns.)

IT **Glycerides**, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(**ethoxylated**, of palm kernel oil; microemulsion light-duty liq. cleaning compns.)

IT **56-81-5, Glycerol**, uses 111-76-2, Ethylene glycol monobutyl ether 111-77-3, Diethylene glycol monomethyl ether 112-34-5, Diethylene glycol monobutyl ether 143-22-6, Triethylene glycol monobutyl ether 1320-67-8, Propylene glycol monomethyl ether 5989-27-5, D-Limonene 8006-39-1, Terpinol 25322-68-3D, C12-14 alkyl ether, sulfate, sodium salt 25322-68-3D, C13-17 paraffin sulfonate, sodium salt 25322-69-4, Polypropylene glycol 29387-86-8, Propylene glycol monobutyl ether 34590-94-8, Dipropylene glycol monomethyl ether 35884-42-5, Dipropylene glycol monobutyl ether 55934-93-5, Tripropylene glycol monobutyl ether 65277-53-4 80763-10-6, Propylene glycol mono(tert-butyl) ether

RL: TEM (Technical or engineered material use); USES (Uses)  
(microemulsion light-duty liq. cleaning compns.)

IT **56-81-5, Glycerol**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(microemulsion light-duty liq. cleaning compns.)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH

HO-CH<sub>2</sub>-CH=CH<sub>2</sub>-OH

L40 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:194757 HCAPLUS

DN 124:235588

TI Manufacture of granular detergent components or compositions containing nonionic surfactants

IN Chisholm, Adam Lowery; Schamp, Koen Mariette Albert

PA Procter and Gamble Co., USA

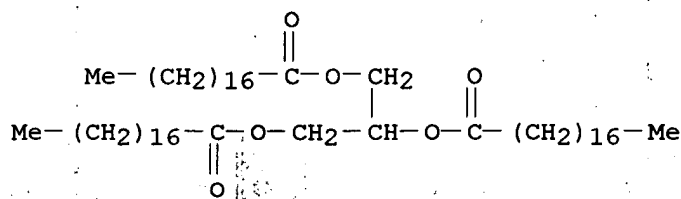
SO. Eur. Pat. Appl., 13 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C11D017-06  
 ICS C11D003-20  
 CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | EP 694608   | A1   | 19960131 | EP 1994-305619  | 19940728 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE   |      |          |                 |          |
|      | WO 9603482  | A1   | 19960208 | WO 1995-US8725  | 19950712 |
|      | W: CA, CN, JP, MX, US, VN   |      |          |                 |          |
|      | CA 2194053  | AA   | 19960208 | CA 1995-2194053 | 19950712 |
|      | CN 1154712  | A    | 19970716 | CN 1995-194389  | 19950712 |
|      | JP 10504334   | T2   | 19980428 | JP 1995-505775  | 19950712 |
| PRAI | EP 1994-305619  |      | 19940728 |                 |          |
|      | WO 1995-US8725  |      | 19950712 |                 |          |
| OS   | MARPAT 124:235588   |      |          |                 |          |
| AB   | A granular laundry detergent component or compn. having bulk d. .gtoreq.650 g/L is prepd. by dissolving a structuring agent comprising a <b>glyceride</b> (e.g., <b>glycerol</b> tristearate) in a nonionic surfactant (e.g., polyhydroxy fatty acid amide- <b>ethoxylated</b> fatty alc. mixt.) to form a pumpable premix and granulating the premix. The nonionic surfactant does not migrate from the granules during storage. The granules dissolve rapidly in water and give good cleaning of stained fabrics. |      |          |                 |          |
| ST   | laundry detergent nonionic surfactant granulation; nonionic surfactant granulation structuring <b>glyceride</b> ; glycerol tristearate nonionic surfactant granulation; amide fatty polyhydroxy surfactant granulation; glucamide fatty surfactant granulation; <b>ethoxylate</b> alc surfactant granulation <b>glyceride</b>   |      |          |                 |          |
| IT   | Fats and <b>Glyceridic</b> oils<br>RL: MOA (Modifier or additive use); USES (Uses)<br>(structuring agents for granulation of nonionic <b>surfactant</b> -contg. <b>detergent</b> components and compns.)  |      |          |                 |          |
| IT   | Amides, uses<br>RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)<br>(fatty, polyhydroxy, <b>surfactants</b> ; <b>glycerides</b> as structuring agents for granulation of <b>detergent</b> compns. contg.)   |      |          |                 |          |
| IT   | Alcohols, uses<br>RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)<br>(fatty, <b>ethoxylated</b> , <b>surfactants</b> ; <b>glycerides</b> as structuring agents for granulation of <b>detergent</b> compns. contg.)   |      |          |                 |          |
| IT   | <b>Detergents</b><br>(laundry, granular, <b>glycerides</b> as structuring agents for granulation of nonionic <b>surfactant</b> -contg.)   |      |          |                 |          |
| IT   | <b>555-43-1, Glycerol</b> tristearate<br>RL: MOA (Modifier or additive use); USES (Uses)<br>(structuring agent for granulation of nonionic <b>surfactant</b> -contg. <b>detergent</b> components and compns.)   |      |          |                 |          |
| IT   | 6284-40-8D, N-Methylglucamine, amides with <b>fatty acids</b><br>25322-68-3D, Polyethylene glycol, monoalkyl derivs.<br>RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)<br>( <b>surfactants</b> ; <b>glycerides</b> as structuring agents for granulation of <b>detergent</b> compns. contg.)  |      |          |                 |          |
| IT   | <b>555-43-1, Glycerol</b> tristearate<br>RL: MOA (Modifier or additive use); USES (Uses)<br>(structuring agent for granulation of nonionic <b>surfactant</b> -contg. <b>detergent</b> components and compns.)   |      |          |                 |          |



RN. 555-43-1 HCAPLUS  
CN Octadecanoic acid, 1,2,3-propanetriyl ester (9CI) (CA INDEX NAME)



L40 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:147801 HCAPLUS

DN 124:179522

TI Mild surfactant compositions comprising sulfates of **monoglycerides** or **ethoxylated monoglycerides** and amino acid derivatives

IN Fabry, Bernd; Behler, Ansgar

PA Henkel KGaA, Germany

SO Ger., 7 pp.

CODEN: GWXXAW

DT Patent

LA German

IC ICM C11D001-37

ICS A61K007-075; A61K007-08; A61K007-09; A61K007-13; A01N037-02;  
A01N041-02; A01N037-44; B01F017-00; D06M013-342; D06M015-15;  
C14C009-00

ICA B01F017-08; B01F017-28; B01F017-30; D06M013-262

CC 46-5 (**Surface Active Agents** and **Detergents**)

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | DE 4433071   | C1   | 19951221 | DE 1994-4433071 | 19940916 |
|      | WO 9608551   | A1   | 19960321 | WO 1995-EP3505  | 19950907 |
|      | W: JP, US  |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |          |
|      | EP 781319  | A1   | 19970702 | EP 1995-932001  | 19950907 |
|      | EP 781319  | B1   | 20000816 |                 |          |
|      | R: BE, DE, ES, FR, GB, IT, NL                                      |      |          |                 |          |
|      | JP 10506417  | T2   | 19980623 | JP 1995-509874  | 19950907 |
|      | ES 2150583   | T3   | 20001201 | ES 1995-932001  | 19950907 |
|      | US 5981450   | A    | 19991109 | US 1997-793999  | 19970317 |
| PRAI | DE 1994-4433071  |      | 19940916 |                 |          |
|      | WO 1995-EP3505   |      | 19950907 |                 |          |

OS MARPAT 124:179522

AB The title compns. contain sulfates  $\text{R1CO}(\text{OCH}_2\text{CH}_2)_x\text{OCH}_2\text{CH}[\text{O}(\text{CH}_2\text{CH}_2\text{O})_y\text{H}]\text{CH}_2\text{O}(\text{CH}_2\text{CH}_2\text{O})_z\text{SO}_3\text{X}$  ( $\text{R1CO}$  = C6-22 acyl;  $x + y + z = 0-30$ ; X = alkali or alk. earth metal) and amino acid derivs. selected from N-(C6-22 acyl)glutamic acids or salts, wheat and/or soya protein hydrolyzates, and/or condensates of C12-18 fatty acids and wheat and/or soya proteins. The compns. have good foaming properties and mildness to skin and are useful in skin cleansers, shampoos, detergents for washing fabrics, etc.

ST amino acid deriv glyceride sulfate surfactant; **ethoxylate glyceride** sulfate surfactant mixt mildness; skin mildness surfactant mixt glyceride sulfate; foaming surfactant mixt glyceride sulfate; glutamate acyl surfactant mixt glyceride sulfate; cleaner skin surfactant glyceride sulfate; shampoo surfactant glyceride sulfate

IT **Surfactants**

(foaming mixts. of **monoglyceride** sulfates and amino acid derivs. with mildness to skin)

IT **Detergents**

**Shampoos**

(foaming mixts. of **monoglyceride** sulfates and amino acid

derivs. with mildness to skin as **surfactants** for)

IT Foaming agents  
(foaming **surfactant** mixts. contg. **monoglyceride**  
sulfates and amino acid derivs. with mildness to skin)

IT Protein hydrolyzates  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(in foaming **surfactant** mixts. contg. **monoglyceride**  
sulfates with mildness to skin)

IT Proteins, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(reaction products with coco **fatty acids**; in  
foaming **surfactant** mixts. contg. **monoglyceride**  
sulfates with mildness to skin)

IT **56-81-5D, Glycerol**, monoesters with **fatty**  
**acids**, sulfated, sodium salts 7664-93-9D, Sulfuric acid,  
monoesters with **monoglycerides**, sodium salts  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(in foaming **surfactant** mixts. contg. amino acid derivs. with  
mildness to skin)

IT 42926-22-7, Sodium N-lauroylglutamate  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(in foaming **surfactant** mixts. contg. **monoglyceride**  
sulfates with mildness to skin)

IT **56-81-5D, Glycerol**, monoesters with **fatty**  
**acids**, sulfated, sodium salts  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(in foaming **surfactant** mixts. contg. amino acid derivs. with  
mildness to skin)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:71501 HCAPLUS

DN 124:179521

TI Tumble dryer articles containing surfactant mixtures for fabric  
conditioning compositions

IN Lam, Andrew C.; Lin, Samuel Q.; Taylor, Timothy J.; Winters, John R.

PA Lever Brothers Company, Division of Conopco, Inc., USA

SO U.S., 7 pp.  
CODEN: USXXAM

DT Patent

LA English

IC ICM D06M013-46  
ICS D06M010-08; B05D003-12

NCL 252008800

CC 46-5 (**Surface Active Agents and**  
**Detergents**)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | US 5480567   | A    | 19960102 | US 1994-259706  | 19940114 |
| OS | MARPAT 124:179521  |      |          |                 |          |
| AB | An article (e.g., nonwoven fabric) giving good transfer of fabric<br>conditioning compds. to fabrics in a tumble dryer contains a mixt. of<br>.gtoreq.1 surfactant with endotherm peak temp. 75-155.degree. selected |      |          |                 |          |

from R2N+Me2 MeOSO3- (R = tallowoyloxyethyl, tallowoyloxypropyl) and ethylenebisstearamide, .gtoreq.1 other surfactant with endotherm peak temp. 35-70.degree. selected from long-chain fatty acids (e.g., C16-18), a **glycerol** deriv. (e.g., **glycerol** monostearate), and/or **alkoxylated** C8-20 alcs., and, optionally, another softening agent such as a quaternary ammonium compd., a tertiary fatty alkylamine, a fatty acid, an **ethoxylated** fatty alc., or a siloxane oil.

ST tumble dryer article fabric conditioner; softener fabric tumble dryer article; ammonium conditioner fabric tumble dryer; fatty acid conditioner fabric tumble dryer; glycerol deriv conditioner fabric tumble dryer; alc alkoxylate conditioner fabric tumble dryer

IT Softening agents

(in tumble dryer articles contg. **surfactant** mixts. for improved transfer to fabrics)

IT **Fatty acids, uses**

Quaternary ammonium compounds, uses

RL: MOA (Modifier or additive use); MSC (Miscellaneous); TEM (Technical or engineered material use); USES (Uses)

(in tumble dryer articles for improved transfer of **conditioners** to fabrics)

IT 57-10-3, Palmitic acid, uses 57-11-4, Stearic acid, uses 57-11-4D, Stearic acid, esters with Me glucoside 110-30-5, Ethylenebisstearamide 112-80-1D, Oleic acid, esters with Me glucoside 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 3149-68-6D, Methyl glucoside, esters with **fatty acids** 9004-99-3, Polyethylene glycol monostearate 31566-31-1, **Glycerol** monostearate

RL: MOA (Modifier or additive use); MSC (Miscellaneous); TEM (Technical or engineered material use); USES (Uses)

(in tumble dryer articles for improved transfer of **conditioners** to fabrics)

IT **31566-31-1, Glycerol monostearate**

RL: MOA (Modifier or additive use); MSC (Miscellaneous); TEM (Technical or engineered material use); USES (Uses)

(in tumble dryer articles for improved transfer of **conditioners** to fabrics)

RN 31566-31-1 HCAPLUS

CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

HO2C- (CH2)16-Me

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH2-CH-CH2-OH

L40 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:50646 HCAPLUS

DN 124:264094

TI High-foaming, light-duty liquid detergents for cleaning hard surfaces

IN Adamy, Steven; Bedi, Sat; Mehreteab, Ammanuel

PA. Colgate Palmolive Co., USA  
 SO U.S., 8 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C11D001-90  
 ICS C11D001-94; C11D001-24; C11D007-26  
 NCL 252544000  
 CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 3

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | US 5476614  | A    | 19951219 | US 1995-373811  | 19950117 |
|    | US 5767050  | A    | 19980616 | US 1995-540636  | 19951011 |
|    | WO 9622347  | A1   | 19960725 | WO 1996-US157   | 19960116 |
|    | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR |      |          |                 |          |
|    | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|    | AU 9646947  | A1   | 19960807 | AU 1996-46947   | 19960116 |

PRAI US 1995-373811 19950117  
 US 1995-540636 19951011  
 WO 1996-US157 19960116

OS MARPAT 124:264094

AB Title detergents with good mildness to human skin and improved interfacial tension for cleaning hard surfaces contain a biodegradable solubilizing agent (e.g. an alkyl polysaccharide surfactant), a water-sol., foaming, ethoxylated alkyl ether sulfate anionic surfactant, and a water-sol., foaming-zwitterionic betaine surfactant. A typical aq. detergent contained polyethoxylated coco fatty acid **glycerol** ester (av. d.p. 6) solubilizer 20, Na laureth sulfate 4.5, cocoamide Pr betaine 5, hydrophobic **ethoxylated** nonionic surfactant 3, and MgSO4.7H2O 8%.

ST liq detergent mild hard surface; anionic nonionic zwitterionic surfactant liq detergent; biodegradable solubilizing agent liq detergent; hydrophobic ethoxylated nonionic surfactant liq detergent; laureth sulfate sodium liq detergent; cocoamide propyl betaine liq detergent; polyoxyethylene glyceride ether liq detergent

IT Betaines

RL: TEM (Technical or engineered material use); USES (Uses)  
 (cocoamide Pr and lauryl dimethylamine; high-foaming, light-duty liq. **detergents** with good mildness for cleaning hard surfaces)

IT Biodegradable materials

(high-foaming, light-duty liq. **detergents** with good mildness for cleaning hard surfaces)

IT Polysaccharides, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (alkyl ethers, high-foaming, light-duty liq. **detergents** with good mildness for cleaning hard surfaces)

IT **Fatty acids**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coco, esters with polyethylene glycol ether with **glycerol** (3:1), high-foaming, light-duty liq. **detergents** with good mildness for cleaning hard surfaces)

IT **Detergents**

(liq., high-foaming, light-duty liq. **detergents** with good mildness for cleaning hard surfaces)

IT 112-42-5, 1-Undecanol 9004-82-4, Sodium laureth sulfate

**31694-55-0D**, Polyethylene glycol **glycerol** ether, esters

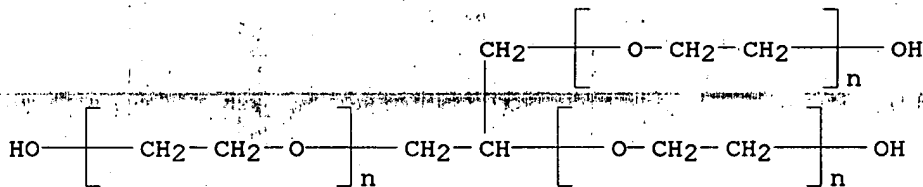
with coco **fatty acids** 34398-01-1, Neodol 1-9

144113-31-5, APG 600 156014-44-7, APG 625

RL: TEM (Technical or engineered material use); USES (Uses)

(high-foaming, light-duty liq. **detergents** with good mildness

for cleaning hard surfaces)  
 IT 31694-55-0D, Polyethylene glycol **glycerol** ether, esters  
 with coco **fatty acids**  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (high-foaming, light-duty liq. **detergents** with good mildness  
 for cleaning hard surfaces)  
 RN 31694-55-0 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1995:931304 HCAPLUS

DN 123:344229

TI Microemulsion all-purpose liquid cleaning compositions for hard surfaces

IN Thomas, Barbara; Adamy, Steven; Bala, Frank; Mehreteab, Ammanuel; Mondin,

Myriam; Loth, Myriam; Broze, Guy

PA Colgate-Palmolive Co., USA

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D017-00,

ICS C11D001-825; C11D001-83; C11D001-66

CC 46-6 (Surface Active Agents and

Detergents)

FAN.CNT 4

|      | PATENT NO.  | KIND     | DATE     | APPLICATION NO. | DATE     |
|------|---|----------|----------|-----------------|----------|
| PI   | EP 668346   | A1       | 19950823 | EP 1995-300717  | 19950206 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE |          |          |                 |          |
|      | US 5571459  | A        | 19961105 | US 1994-350576  | 19941207 |
| PRAI | US 1994-192902  | 19940207 |          |                 |          |
|      | US 1994-350576  | 19941207 |          |                 |          |

AB Environment-friendly aq. title compns. contain **ethoxylated glycerol**-type compd. (polyethoxylated **glycerol** coco fatty acid ester) 1-20, anionic sulfate surfactant 0.1-8, a cosurfactant 1-50, and .gtoreq.1 hydrocarbon and(or) perfume 0.4-20%. The

**ethoxylated glycerol**-type compd., hydrocarbon, and perfume improved the removal of greasy or oily soil from the surfaces.  
 ST environment friendly emulsion liq cleaner; perfume emulsion liq cleaner; hydrocarbon emulsion liq cleaner; **ethoxylated glycerol** emulsion liq cleaner

IT Hydrocarbons, uses

Terpenes and Terpenoids, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (microemulsion all-purpose liq. cleaning compns. for hard surfaces)

IT **Fatty acids**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coco, esters, with polyethylene glycol **glycerol** ether;  
 microemulsion all-purpose liq. cleaning compns. for hard surfaces)

IT **Fatty acids**, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coco, esters with polyethylene glycol ether with **glycerol**  
 (3:1), Levenol F 200; microemulsion all-purpose liq. cleaning compns.  
 for hard surfaces)

IT **Detergents**

(liq., microemulsion all-purpose liq. cleaning compns. for hard surfaces)

IT **Fatty acids**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (tallow, esters, with polyethylene glycol **glycerol** ether;  
 microemulsion all-purpose liq. cleaning compns. for hard surfaces)

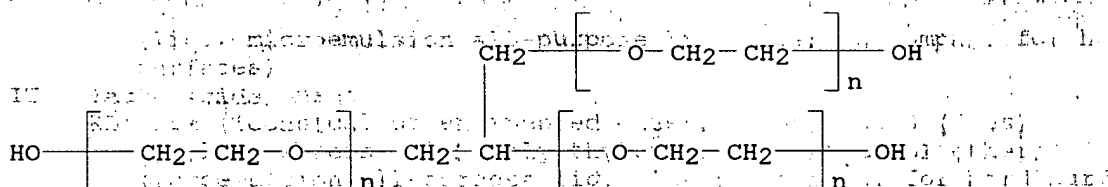
IT **Fatty acids**, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (tallow, esters with polyethylene glycol ether with **glycerol**  
 (3:1), Levenol V 501/2; microemulsion all-purpose liq. cleaning compns.  
 for hard surfaces)

IT 112-40-3, Dodecane **31694-55-0D**, Polyethylene glycol  
**glycerol** ether, fatty esters  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (microemulsion all-purpose liq. cleaning compns. for hard surfaces)

IT **31694-55-0D**, Polyethylene glycol **glycerol** ether, fatty  
 esters  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (microemulsion all-purpose liq. cleaning compns. for hard surfaces)

RN 31694-55-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1995:902631 HCAPLUS

DN 123:290532

TI **Monoglycerides** for improving the foaming properties of fatty  
 acid esters of **ethoxylated** alcohols

IN Tonomura, Manabu; Iwahashi, Masaaki; Koike, Toyomi

PA Kao Corp., Japan

SO Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW

DT Patent

LA English

IC ICM A61K007-50  
 ICS A61K007-48; C11D001-825; C11D001-94

CC 46-6 (**Surface Active Agents** and  
**Detergents**)

FAN.CNT 1

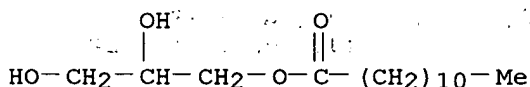
|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | EP 661043      | A1   | 19950705 | EP 1994-120398  | 19941222 |
|      | R: DE, ES, GB  |      |          |                 |          |
|      | JP 07197083    | A2   | 19950801 | JP 1993-354071  | 19931228 |
|      | US 5554315     | A    | 19960910 | US 1994-364687  | 19941228 |
| PRAI | JP 1993-354071 |      | 19931228 |                 |          |

AB The foaming properties of a surfactant R(OR1)nOR2 (R = C10-18 alkanoyl or  
 alkenoyl; R1 = C2-4 alkylene; R2 = lower alkyl; n = 5-100) are improved by  
 the addn. of a monoglyceride R3OCH2CH(OH)CH2OH (R3 = C8-16 alkanoyl or  
 C12-22 alkenoyl). A 2:1 mixt. of Me(CH2)10CO(OCH2CH2)nOMe (n = 15) and  
 glycerol monocaprate showed good foaming properties.

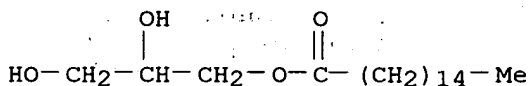
ST fatty ester **ethoxylate** alc foaming **monoglyceride**;  
 polyoxyethylene alkyl ether fatty ester foaming; **glyceride**  
 foaming fatty ester **ethoxylate** alc; laurate polyoxyethylene  
 alkyl ether foaming monoglyceride; caprate **glycerol** foaming  
 fatty ester **ethoxylate**; nonionic surfactant fatty ester

*High SP*

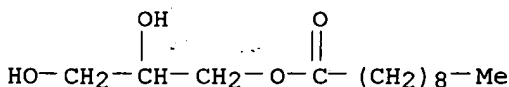
ethoxylate foaming  
 IT Foaming agents  
   (monoglycerides; mixts. with fatty acid  
   esters of ethoxylated lower alcs. for improved foaming)  
 IT Detergents  
   (cleaning compns., mixts. of monoglycerides and fatty  
   acid esters of ethoxylated lower alcs. as  
   surfactants for high-foaming)  
 IT Glycerides, uses  
   RL: PRP (Properties); TEM (Technical or engineered material use); USES  
   (Uses)  
   (mono-, surfactants; mixts. with fatty acid  
   esters of ethoxylated lower alcs. for improved foaming)  
 IT Surfactants  
   (nonionic, mixts. of monoglycerides and fatty  
   acid esters of ethoxylated lower alcs. as  
   high-foaming)  
 IT 142-18-7, Dodecanoic acid 2,3-Dihydroxypropyl ester  
   542-44-9, Hexadecanoic acid 2,3-Dihydroxypropyl ester  
   2277-23-8, Decanoic acid 2,3-Dihydroxypropyl ester  
   RL: PRP (Properties); TEM (Technical or engineered material use); USES  
   (Uses)  
   (surfactants; mixts. with fatty acid  
   esters of ethoxylated lower alcs. for improved foaming)  
 IT 9004-74-4D, Polyethylene glycol monomethyl ether, esters with  
   fatty acids 9006-27-3, Polyethylene glycol monomethyl  
   ether laurate 32761-35-6, Polyethylene glycol monomethyl ether myristate  
   53467-81-5, Polyethylene glycol monomethyl ether palmitate 53467-82-6,  
   Polyethylene glycol monomethyl ether stearate  
   RL: PRP (Properties); TEM (Technical or engineered material use); USES  
   (Uses)  
   (surfactants; mixts. with monoglycerides for  
   improved foaming properties)  
 IT 142-18-7, Dodecanoic acid 2,3-Dihydroxypropyl ester  
   542-44-9, Hexadecanoic acid 2,3-Dihydroxypropyl ester  
   2277-23-8, Decanoic acid 2,3-Dihydroxypropyl ester  
   RL: PRP (Properties); TEM (Technical or engineered material use); USES  
   (Uses)  
   (surfactants; mixts. with fatty acid  
   esters of ethoxylated lower alcs. for improved foaming)  
 RN 142-18-7 HCAPLUS  
 CN Dodecanoic acid, 2,3-dihydroxypropyl ester (9CI) (CA INDEX NAME)



RN 542-44-9 HCAPLUS  
 CN Hexadecanoic acid, 2,3-dihydroxypropyl ester (9CI) (CA INDEX NAME)



RN 2277-23-8 HCAPLUS  
 CN Decanoic acid, 2,3-dihydroxypropyl ester (9CI) (CA INDEX NAME)



L40 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1995:713730 HCAPLUS  
 DN 123:86640  
 TI Preparation of surfactant mixtures containing **ethoxylated**  
 partial **glycerides**  
 IN Bigorra Llosas, Joaquim; Pi, Rafael; Prat Queralt, Ester  
 PA Henkel K.-G.a.A., Germany; Pulcra S.A.  
 SO Ger., 6 pp.  
 CODEN: GWXXAW  
 DT Patent  
 LA German  
 IC ICM C07C233-36  
 ICS C07C233-38; C07C069-708; C07C231-12; C07D233-22; C11D001-90;  
 C11D001-94; C11D001-62

ICA A01N033-12  
 CC 46-3 (Surface Active Agents and  
 Detergents)

FAN.CNT 1

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|----|------------|------|----------|-----------------|----------|
| PI | DE 4337324 | C1   | 19950216 | DE 1993-4337324 | 19931102 |
|    | DE 4337324 | C2   | 19980520 |                 |          |
|    | WO 9512571 | A1   | 19950511 | WO 1994-EP3520  | 19941026 |

W: JP, US

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

|                           |    |          |                |          |
|---------------------------|----|----------|----------------|----------|
| EP 726890                 | A1 | 19960821 | EP 1994-930979 | 19941026 |
| EP 726890                 | B1 | 19990512 |                |          |
| R: BE, DE, ES, FR, GB, IT |    |          |                |          |
| JP 09504332               | T2 | 19970428 | JP 1994-512996 | 19941026 |
| ES 2133586                | T3 | 19990916 | ES 1994-930979 | 19941026 |
| PRAI DE 1993-4337324      |    | 19931102 |                |          |
| WO 1994-EP3520            |    | 19941026 |                |          |

OS MARPAT 123:86640

AB The title mixts., showing good storage stability and useful in detergents and shampoos, are prep'd. by alkylating a secondary or tertiary amine in the presence of an **ethoxylated** partial **glyceride** in the absence of water or an org. solvent. An adduct of 7 mol ethylene oxide and 1 mol coco **monoglyceride** was heated to 85.degree., mixed with ClCH<sub>2</sub>CO<sub>2</sub>Na, treated with N-coco amidopropyl-N,N-dimethylamine, and heated at 90.degree. to give a surfactant mixt. contg. betaine 55, **ethoxylated** coco **monoglyceride** 38, coco fatty acid 5, and salt 2%.

ST betaine **ethoxylate** partial **glyceride** surfactant mixt;  
 amine quaternization surfactant **ethoxylate** partial  
**glyceride**

IT Quaternization

(of amines in prepn. of **surfactant** mixts. contg. betaines and  
**ethoxylated** partial **glycerides**)

IT **Surfactants**

(prepn. of solvent-free mixts. of betaines and **ethoxylated**  
 partial **glycerides**)

IT Betaines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (coco amidopropyl, prepn. of **surfactant** mixts. contg.  
**ethoxylated** partial **glycerides** and)

IT Amides, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (coco, N-[(dimethylamino)propyl], quaternization products with sodium  
 chloroacetate; prepn. of **surfactant** mixts. contg.  
**ethoxylated** partial **glycerides** and)

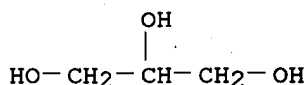
IT 56-81-5DP, Glycerol, partial esters with **fatty**

**acids**, **ethoxylated** 25322-68-3DP, Polyethylene glycol,  
 ethers with partial **glycerides**

RL: IMF (Industrial manufacture); TEM (Technical or engineered material



use); PREP (Preparation); USES (Uses)  
 (prepn. of **surfactant** mixts. contg. coco amidopropyl betaine  
 and)  
 IT 3926-62-3DP, Sodium chloroacetate, quaternization products with (coco  
 amidopropyl)dimethylamine  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (prepn. of **surfactant** mixts. contg. **ethoxylated**  
 partial **glycerides** and)  
 IT 56-81-5DP, **Glycerol**, partial esters with **fatty**  
**acids, eth xylated**  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (prepn. of **surfactant** mixts. contg. coco amidopropyl betaine  
 and)  
 RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER-26 OF 42 HCAPLUS. COPYRIGHT 2001 ACS  
 AN 1995:594416 HCAPLUS  
 DN 123:86666  
 TI Detergent compositions containing **alkoxylated glycerol**  
 and mono-, di-, and triesters of **alkoxylated glycerol**  
 IN Pujol, Enrique; Pujadas, Francisco; Prat, Antonio; Okabe, Kazuhiko  
 PA Kao Corporation, S.A., Spain  
 SO U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 979,092, abandoned.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C11D001-825  
 ICS C11D001-722; C11D011-04  
 NCL 252174220  
 CC 46-5 (**Surface Active Agents** and  
**Detergents**)

FAN.CNT 2

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | US 5403509     | A    | 19950404 | US 1993-93621   | 19930720 |
| PRAI | EP 1992-500092 |      | 19920720 |                 |          |
|      | US 1992-979052 |      | 19921119 |                 |          |

AB Detergent comps. contg. glycerol derivs. B(OCHR1CH2)noCH[CH2O(CH2CHR1O)mB  
 ]CH2O(CH2CHR1O)pB (I; B = H, RCO; .gtoreq.1 B = RCO; R = C6-22 alkyl or  
 alkenyl; R1 = H, CH3; n, m, p = 0-40; n + m + p = 2-100) and I (B = H; R1,  
 n, m, p as defined above) are non-toxic, non-irritating, and biodegradable  
 and show good detergency, foam stability, and dye transfer inhibition  
 during laundering. The **glycerol** derivs. are prepd. by  
 interesterification of **triglycerides** (e.g., coconut oil) with  
**glycerol**, **alkoxylation** with a C2-3 alkylene oxide, and  
 esterification with a fatty acid.

ST **glycerol alkoxylate** ester laundry detergent;  
**ethoxylate glycerol** ester laundry detergent; fatty ester  
**glycerol alkoxylate** detergent; coco **glyceride**  
**alkoxylate** ester detergent; dye transfer inhibitor laundry  
 detergent

IT Dyes  
 (alkoxylated **glycerol** and esters of  
**alkoxylated glycerol** in laundry **detergents**  
 for inhibiting transfer of)

IT Coconut oil  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material

use); USES (Uses)  
(interesterification products with **glycerol**,  
**ethoxylated, surfactants**; in laundry  
**detergents** with dye-transfer-inhibiting ability)

IT **Fatty acids**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(mono- and diesters with **glycerol** and **ethoxylated**  
**glycerol, surfactants**; in laundry **detergents**  
with dye-transfer-inhibiting ability)

IT **Glycerides**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(di-, **ethoxylated, surfactants**; in laundry  
**detergents** with dye-transfer-inhibiting ability)

IT **Detergents**  
(laundry, **alkoxylated glycerol** and esters of  
**alkoxylated glycerol** in dye-transfer-inhibiting)

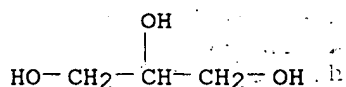
IT **Glycerides**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(mono-, **ethoxylated, surfactants**; in laundry  
**detergents** with dye-transfer-inhibiting ability)

IT **Surfactants**  
(nonionic, **alkoxylated glycerol** and esters of  
**alkoxylated glycerol**; prepn. and use for dye transfer  
inhibition during laundering)

IT **56-81-5D, Glycerol**, interesterification products with  
coconut oil, **ethoxylated** 75-21-8D, Ethylene oxide, reaction  
products with **glycerol** and **glycerol fatty**  
**acid esters**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(**surfactants**; in laundry **detergents** with  
dye-transfer-inhibiting ability)

IT **56-81-5D, Glycerol**, interesterification products with  
coconut oil, **ethoxylated**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
use); USES (Uses)  
(**surfactants**; in laundry **detergents** with  
dye-transfer-inhibiting ability)

RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
AN 1995:502969 HCAPLUS  
DN 122:242808  
TI Laundry detergent containing protease for removing protein soils  
IN Daurov, Boris K.; Simanova, Marionella V.; Chernyshev, Gennadij N.;  
Mikhalkin, Anatolij P.; Gnatyuk, Petro P.; Fanda, Valentina V.  
PA Vsesoyuznyj Nauchno-Issledovatel'skij i Proektnyj Institut Khimicheskoy  
Promyshlennosti, USSR  
SO U.S.S.R.  
From: Izobreteniya 1993, 19, 182.  
CODEN: URXXAF  
DT Patent  
LA Russian  
IC ICM C11D003-386  
ICI C11D003-386, C11D001-72, C11D003-20, C11D009-26  
CC 46-5 (Surface Active Agents and

**Detergents)**

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | SU 1817790  | A3   | 19930523 | SU 1991-4951905 | 19910628 |
| AB | The title detergent with good enzyme stability contains <b>ethoxylated</b> nonylphenol or Na alkanesulfonate 13-18, <b>ethoxylated</b> C10-18 synthetic fatty alcs. 7-15, K salts of C17-22 synthetic fatty acids 2-5, ethylene glycol or <b>glycerol</b> 5-10, K adipate 2-5, protease 1-3, N-(C9-20 acyl) amino acid 1-3, MgSO4 0.5-1.5, brightener 0.1-0.3, and fragrance 0.1-0.3%, the balance being water. |      |          |                 |          |
| ST | laundry detergent protease storage stability; ethoxylate nonylphenol laundry detergent protease; alkanesulfonate laundry detergent protease; potassium soap laundry detergent protease; ethylene glycol laundry detergent protease; <b>glycerol</b> laundry detergent protease  |      |          |                 |          |
| IT | <b>Detergents</b><br>(laundry, liq., storage-stable protease-contg.)  |      |          |                 |          |
| IT | <b>Soaps</b><br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(potassium, in liq. laundry <b>detergents</b> contg. protease)   |      |          |                 |          |
| IT | <b>56-81-5, Glycerol</b> , uses 107-21-1, Ethylene glycol, uses 7440-09-7D, Potassium, salts with <b>fatty acids</b> 9016-45-9, Ethoxylated nonylphenol 19147-16-1, Dipotassium adipate 25322-68-3D, Polyethylene glycol, monoalkyl ethers<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(in liq. laundry <b>detergents</b> contg. protease)  |      |          |                 |          |
| IT | 9001-92-7, Proteinase<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(in liq. laundry <b>detergents</b> with storage stability)  |      |          |                 |          |
| IT | <b>56-81-5, Glycerol</b> , uses<br>RL: TEM (Technical or engineered material use); USES (Uses)<br>(in liq. laundry <b>detergents</b> contg. protease)   |      |          |                 |          |
| RN | 56-81-5 HCAPLUS   |      |          |                 |          |
| CN | 1,2,3-Propanetriol (9CI) (CA INDEX NAME)  |      |          |                 |          |

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>=OH

L40 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1994:438117 HCAPLUS  
 DN 121:38117  
 TI Pearlescent liquid detergent compositions  
 IN Hayakawa, Yutaka; Tosaka, Masaki  
 PA Kao Corp, Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D001-83  
 ICS A61K007-075; A61K007-50  
 ICI C11D001-83, C11D001-68, C11D001-12, C11D003-40, C11D003-37  
 CC 46-6 (**Surface Active Agents** and **Detergents**)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | JP 06017088  | A2   | 19940125 | JP 1992-174499  | 19920701 |
| OS | MARPAT 121:38117   |      |          |                 |          |
| AB | The title compns., showing good storage stability, foaming properties, and detergency, contain 1-40% glycosides R1(OR2)xGy (R1 = C8-18 alkyl, alkenyl, alkylphenyl; R2 = C2-4 alkylene; G = residue of C5-6 reducing sugar; x = 0-5; yr = 1.0-1.42), 1-40% anionic surfactants, 1-10% opacifier [e.g., 2-hydroxyethyl stearate (I), N-(2-hydroxyethyl)stearamide, or a |      |          |                 |          |

monoglyceride], and 1-10% polyethylene glycol (II),  
**ethoxylated glycerol**, or a similar compd. A compn.  
 contg. dodecyl glucoside 15, polyethylene glycol monododecyl ether sulfate  
 Na salt 15, I 6, II (mol. wt. 1000) 4, EtOH 5, and H2O 55% showed good  
 pearlescence before and after storage at -5.degree., +30.degree., or  
 +40.degree. for 1 mo.

ST pearlescence liq detergent storage stability; glycoside liq detergent  
 pearlescence; polyoxyalkylene ether liq detergent pearlescence; opacifier  
 pearlescence liq detergent; amide opacifier pearlescence detergent;  
 monoglyceride opacifier pearlescence detergent

IT Opacifiers  
 (liq. **detergent** compns. contg., pearlescent, foaming)

IT Pearly substances  
 (liq. **detergents** contg. opacifiers and, stable, foaming)

IT **Glycosides**  
 RL: USES (Uses)  
 (alkyl, liq. **detergent** compns. contg. opacifiers and,  
 pearlescent, foaming)

IT **Detergents**  
 (liq., pearlescent, contg. alkyl glycosides and opacifiers, stable,  
 foaming)

IT **Glycerides, uses**  
 RL: USES (Uses)  
 (mono-, opacifiers, liq. **detergent** compns. contg.,  
 pearlescent, foaming)

IT **Fatty acids, uses**  
 RL: USES (Uses)  
 (sulfo, esters, liq. **detergent** compns. contg. opacifiers and,  
 pearlescent, foaming)

IT 9004-82-4, Polyethylene glycol monododecyl ether sulfate sodium salt  
 59122-55-3  
 RL: USES (Uses)  
 (liq. **detergent** compns. contg. opacifiers and, pearlescent,  
 foaming)

IT 111-57-9, N-(2-Hydroxyethyl)stearamide 111-60-4, Ethylene glycol  
 monostearate 9051-48-3, Polypropylene glycol ethylene glycol ether  
 25322-68-3 **31566-31-1**, Glycerin monostearate **31694-55-0**  
 , Polyethylene glycol **glycerol** ether  
 RL: USES (Uses)  
 (opacifiers, liq. **detergent** compns. contg., pearlescent,  
 foaming)

IT **31566-31-1**, Glycerin monostearate **31694-55-0**,  
 Polyethylene glycol **glycerol** ether  
 RL: USES (Uses)  
 (opacifiers, liq. **detergent** compns. contg., pearlescent,  
 foaming)

RN 31566-31-1 HCAPLUS

CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX  
 NAME)

CM 1

CRN 57-11-4

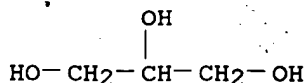
CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

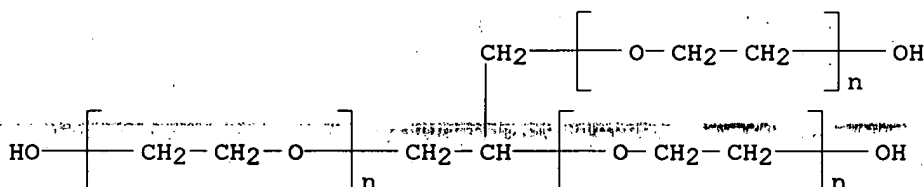
CM 2

CRN 56-81-5

CMF C3 H8 O3



RN 31694-55-0 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1994:438102 HCAPLUS

DN 121:38102

TI Nonionic surfactants comprising esters of fatty acids and  
**ethoxylated glycerol** and partial **glycerides**

IN Pujol, Enrique; Pujadas, Francisco; Prat, Antonio; Okabe, Kazuhiko

PA Kao Corp., S.A., Spain

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English.

IC ICM C11D001-74

CC 46-5 (Surface Active Agents and  
**Detergents**)

FAN.CNT 2

|      | PATENT NO.                        | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-----------------------------------|------|----------|-----------------|----------|
| PI   | EP 586323                         | A1   | 19940309 | EP 1993-500108  | 19930720 |
|      | EP 586323                         | B1   | 19960410 |                 |          |
|      | R: AT, BE, DE, ES, FR, GB, IT, NL |      |          |                 |          |
|      | AT 136579                         | E    | 19960415 | AT 1993-500108  | 19930720 |
|      | ES 2088254                        | T3   | 19960801 | ES 1993-500108  | 19930720 |
| PRAI | EP 1992-500092                    |      | 19920720 |                 |          |

AB The title surfactants B(OCHR<sub>1</sub>CH<sub>2</sub>)mOCH<sub>2</sub>CH[O(CH<sub>2</sub>CHR<sub>1</sub>O)<sub>n</sub>B]CH<sub>2</sub>O(CH<sub>2</sub>CHR<sub>1</sub>O)<sub>l</sub>B (B = H, RCO; R = C<sub>6</sub>-22 alkyl or alkenyl; R<sub>1</sub> = H, Me; n, m, l = 0-40; m + n + l = 2-100), comprising monoesters 46-90, diesters 9-30, and triesters 1-15 parts, are useful for washing fabrics, skin, etc., showing good detergency, dye transfer inhibition, and mildness to skin. The surfactants are prepd. by interesterification of a **triglyceride** and **glycerol** and **alkoxylation** of the product or by **alkoxylation** of **glycerol** and reaction of the product with fatty acids or their me esters. A surfactant was prepd. by interesterifying 0.76 mol coco **triglycerides** with 2.29 mol **glycerol** followed by **ethoxylation** with 45.7 mol ethylene oxide.

ST **glyceride alkoxyate** nonionic surfactant;  
**glycerol alkanoate alkoxyate** nonionic surfactant;  
**ethoxyate glycerol** alkanoate nonionic surfactant;  
 polyoxyethylene deriv glycerol alkanoate surfactant; laundry detergent  
**glyceride alkoxyate**; skin cleaner **glyceride alkoxyate**; dye transfer inhibitor **glyceride alkoxyate**

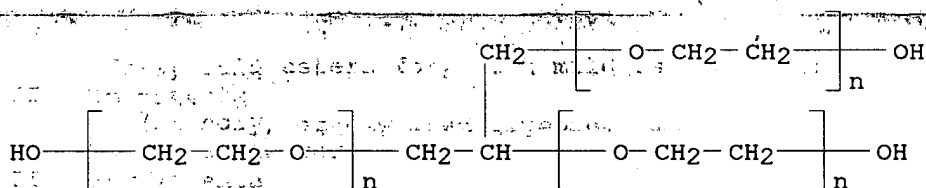
IT Dyes

(transfer of, redn. of, laundry **detergents** contg. nonionic  
**surfactants** for)

IT **Detergents**

(cleaning compns., **ethoxylated glycerol**)

IT fatty acid esters for, with mildness to skin)  
 IT Detergents  
 (laundry, ethoxylated glycerol fatty  
 acid esters for)  
 IT Surfactants  
 (nonionic, ethoxylated glycerol fatty  
 acid esters, prepn. and uses of)  
 IT 75-21-8DP, Oxirane, reaction products with glycerol and  
 glycerides 25322-68-3DP, ethers with glycerol esters,  
 esters with fatty acids 31694-55-ODP,  
 fatty acid esters  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (surfactants, prepn. and uses of)  
 IT 31694-55-ODP, fatty acid esters  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (surfactants, prepn. and uses of)  
 RN 31694-55-0 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-  
 propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1994:33400 HCAPLUS  
 DN 120:33400  
 TI Esters of fatty acids and ethoxylated polyols as thickeners  
 IN Trius Oliva, Antonio; Ponsati, Obiols, Oriol; Bigorra Llosas, Joaquim;  
 Prat Queralt, Esther  
 PA Henkel K.-G.a.A., Germany; Pulcra S. A.  
 SO Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM C07C069-30  
 ICS C11D003-20  
 ICA B01F017-02; B01F017-10; B01F017-14; B01F017-30; B01F017-42; B01F017-28;  
 B01F017-32  
 CC 46-4 (Surface Active Agents and  
 Detergents)

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | DE 4137317  | A1   | 19930519 | DE 1991-4137317 | 19911113 |
|      | WO 9310072  | A1   | 19930527 | WO 1992-EP2525  | 19921104 |
|      | W: BR, JP, US   |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE        |      |          |                 |          |
|      | EP 613457   | A1   | 19940907 | EP 1992-922862  | 19921104 |
|      | EP 613457   | B1   | 19960619 |                 |          |
|      | R: DE, ES, FR, GB, IT   |      |          |                 |          |
|      | JP 07501354   | T2   | 19950209 | JP 1992-508927  | 19921104 |
|      | ES 2088161  | T3   | 19960801 | ES 1992-922862  | 19921104 |
|      | US 5576451  | A    | 19961119 | US 1994-244066  | 19940513 |
| PRAI | DE 1991-4137317   |      | 19911113 |                 |          |
|      | WO 1992-EP2525  |      | 19921104 |                 |          |
| OS   | MARPAT 120:33400  |      |          |                 |          |
| AB   | The title esters are prepd. and used as thickeners for aq. surfactant |      |          |                 |          |

solns. An adduct of 110 mol ethylene oxide and 1 mol **glycerol** was prepd. with KOH as the **ethoxylation** catalyst and esterified (0.15 mol) with 0.47 mol tallow fatty acids with MeSO<sub>3</sub>H as the catalyst. The product was used as a thickener for an aq. Na lauryl ether sulfate soln.

ST ethoxylate polyol ester thickener surfactant; **glycerol** **ethoxylate** ester thickener surfactant; sulfate ethoxylate alc soln thickener; polyoxyethylene polyol ether ester thickener

IT Thickening agents  
(fatty acid esters of ethoxylated polyols, for aq. surfactants solns.)

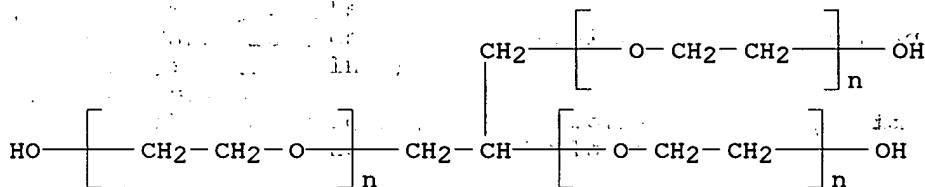
IT **Surfactants**  
(thickening agents for aq. solns. of, fatty acid esters of ethoxylated polyols as)

IT 9004-82-4  
RL: USES (Uses)  
(thickening agents for aq. solns. of, fatty acid esters of ethoxylated polyols as)

IT **31694-55-0D**, Polyethylene glycol **glycerol** ether, esters with tallow acids **41080-66-4**, Polyethylene glycol **glycerol** ether tristearate **104032-68-0**  
RL: USES (Uses)  
(thickening agents, for surfactant solns.)

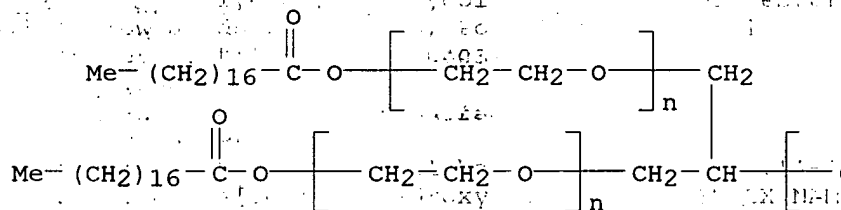
IT **31694-55-0D**, Polyethylene glycol **glycerol** ether, esters with tallow acids **41080-66-4**, Polyethylene glycol **glycerol** ether tristearate **104032-68-0**  
RL: USES (Uses)  
(thickening agents, for surfactant solns.)

RN **31694-55-0** HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha.', .alpha.'-1,2,3-propanetriyltris[.omega.-hydroxy- (9CI) (CA INDEX NAME)

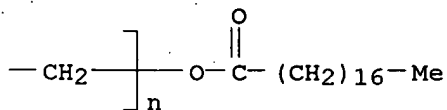


RN **41080-66-4** HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha., .alpha.', .alpha.'-1,2,3-propanetriyltris[.omega.-[(1-oxooctadecyl)oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



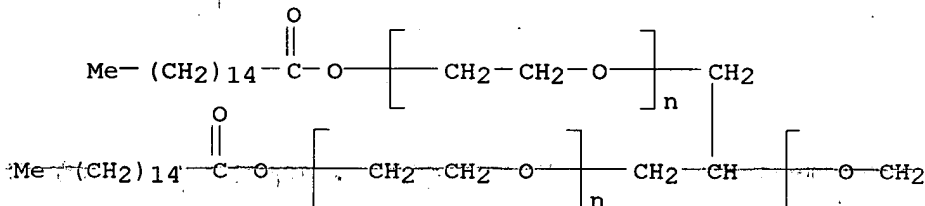
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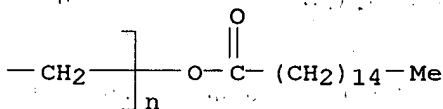
RN 104032-68-0 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-[(1-oxohexadecyl)oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L40 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1993:541659 HCAPLUS

DN 119:141659

TI Nonionic liquid detergent composition for automatic cleaning of rubber printing blankets in offset machines

IN Mueller, Walter R.

PA Baldwin-Gegenheimer GmbH, Germany

SO Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C11D017-00

ICS C11D001-74; C11D003-43

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | EP 527315   | A2   | 19930217 | EP 1992-110881  | 19920626 |
|    | EP 527315   | A3   | 19930922 |                 |          |
|    | EP 527315   | B1   | 19951206 |                 |          |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |          |
|    | DE 4126719  | A1   | 19930218 | DE 1991-4126719 | 19910813 |
|    | AT 131207   | E    | 19951215 | AT 1992-110881  | 19920626 |

PRAI DE 1991-4126719 19910813

AB The title compn., giving good removal of ink and paper residues, is a microemulsion contg. 5-40% adduct of 5-10 mol ethylene oxide and 1 mol



partial glyceride of caprylic and capric acids, 1-10% 1,2-bis(2-oxazolinyl)ethane, and 10-90% Me caprylate, Me caprate, Me laurate, Me myristate, and/or coco fatty acid Me esters.

ST offset printing rubber blanket cleaner; **ethoxylate glyceride** cleaner offset printing; caprate ester cleaner offset printing; caprylate ester cleaner offset printing; laurate methyl cleaner offset printing; myristate methyl cleaner offset printing; nonionic surfactant cleaner offset printing

IT **Detergents**  
(cleaning compns., liq., nonionic, for rubber printing blankets in offset machines)

IT **Fatty acids, esters**  
RL: USES (Uses)  
(coco, Me esters, cleaners contg., for offset printing blankets)

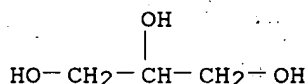
IT **Lithography**  
(offset, cleaners for rubber printing blankets in)

IT **56-81-5D, Glycerol**, esters with capric and caprylic acids, **ethoxylated** 75-21-8D, Ethylene oxide, reaction products with partial **glycerides** of carboxylic acids 110-42-9, Methyl caprate 111-11-5, Methyl caprylate 111-82-0, Methyl laurate 124-07-2D, Caprylic acid, **glycerides, ethoxylated** 124-10-7, Methyl myristate 334-48-5D, Capric acid, **glycerides, ethoxylated** 25322-68-3D, Polyethylene glycol, ethers with partial **glycerides of C8-10 fatty acids** 83348-54-3  
RL: USES (Uses)  
(cleaners contg., for offset printing blankets)

IT **56-81-5D, Glycerol**, esters with capric and caprylic acids, **ethoxylated**  
RL: USES (Uses)  
(cleaners contg., for offset printing blankets)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1993:410832 HCAPLUS

DN 119:10832

TI Detergent for cleaning of gas-turbine engine compressors

IN Litvinov, Aleksej A.; Lastovets, Anatolij N.; Skripka, Natalya I.; Zadorin, Mikhail V.; Kobinek, Viktor S.; Sedykh, Aleksandr S.; Novikova, Valentina F.; Lopatenko, Svetlana K.; Gorbachevskaya, Lidiya A.

PA Ki i inzhenerov grazhdanskoj aviatsii im.60-letiya sssr, USSR

SO U.S.S.R.  
From: Izobreteniya 1992, (30), 117.  
CODEN: URXXAF

DT Patent

LA Russian

IC ICM C11D001-72

ICI C11D001-72, C11D003-20

CC 46-6 (**Surface Active Agents and Detergents**)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | SU 1754774  | A1   | 19920815 | SU 1990-4838832 | 19900612 |
| AB | The title detergent having increased efficiency at elevated temps. comprises an aq. soln. contg. 0.2-0.4% <b>ethoxylated</b> C10-16 synthetic fatty acid monoethanolamides and 2.0-4.0% <b>glycerol</b> . |      |          |                 |          |
| ST | cleaner gas turbine engine compressor; fatty amide ethoxylate compressor cleaner; <b>glycerol</b> fatty amide <b>ethoxylate</b> detergent   |      |          |                 |          |

IT Amides, compounds  
 RL: USES (Uses)  
 (C10-16, N-(hydroxyethyl), **ethoxylated, detergent**  
 for cleaning of gas-turbine engine compressors contg. aq.  
**glycerol** and)  
 IT Turbines  
 (compressors, gas-, **detergents** for cleaning of)  
 IT **Detergents**  
 (liq., nonionic, **ethoxylated fatty acid**  
 monoethanolamide-**glycerol**-water mixts., for gas-turbine  
 engine compressors)  
 IT Compressors  
 (turbine, gas-, **detergents** for cleaning of)  
 IT 25322-68-3D, **fatty acid** ethanolamide derivs.  
 RL: USES (Uses)  
 (**detergent** for cleaning of gas-turbine engine compressors  
 contg. aq. **glycerol** and)  
 IT **56-81-5, Glycerol**, uses  
 RL: USES (Uses)  
 (**detergent** for cleaning of gas-turbine engine compressors  
 contg. **ethoxylated fatty acid**  
 monoethanolamides and)  
 IT **56-81-5, Glycerol**, uses  
 RL: USES (Uses)  
 (**detergent** for cleaning of gas-turbine engine compressors  
 contg. **ethoxylated fatty acid**  
 monoethanolamides and)  
 RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1991:124927 HCAPLUS  
 DN 114:124927  
 TI Classification and analysis of surfactant products by simple laboratory  
 techniques  
 AU Valea Perez, Angel; Gonzalez Arce, Maria L.  
 CS Dpto. Ing. Quim. Med. Ambiente, Esc. Univ. Ing. Tec. Ind., Bilbao, 48012,  
 Spain  
 SO Tec. Lab. (1989), 12(149), 236-45  
 CODEN: TCLBAB; ISSN: 0371-5728  
 DT Journal  
 LA Spanish  
 CC 46-3 (**Surface Active Agents** and  
**Detergents**)  
 Section cross-reference(s): 80  
 AB Two anal. methods are described for detection of surfactants in mixts.,  
 such as those encountered in com. detergent formulations. Ionic and  
 nonionic surfactants are identified by colorimetric methods using  
 reagents: Ce nitrate, CHCl<sub>3</sub>/AlCl<sub>3</sub>, aq. Br, KMnO<sub>4</sub>, alc. KOH, and acetic  
 anhydride/H<sub>2</sub>SO<sub>4</sub>. Solvent extn. was used to isolate surfactants from  
 formulations and TLC methods were used to sep. ionic and nonionic  
 surfactants in mixt.  
 ST colorimetry surfactant detn reagent; chromatog thin layer surfactant mixt;  
 ionic nonionic surfactant sepn TLC  
 IT **Surfactants**  
 (detn. of, in **surfactant** mixts., TLC and colorimetry in)  
 IT Chromatography, thin-layer  
 (**surfactant** detn. in mixts. by)  
 IT Spectrochemical analysis  
 (colorimetric, **surfactant** detn. in mixts. by)

IT. **Fatty acids, esters**  
 RL: ANT (Analyte); ANST (Analytical study)  
 (ethoxylated, esters, detn. of, in **surfactant** mixts., TLC and colorimetry in)

IT **Amines, compounds**  
 RL: ANT (Analyte); ANST (Analytical study)  
 (fatty, ethoxylated, detn. of, in **surfactant** mixts., TLC and colorimetry in)

IT **Saps**  
 RL: ANT (Analyte); ANST (Analytical study)  
 (sodium, detn. of, in **surfactant** mixts., TLC and colorimetry in)

IT **Fatty acids, compounds**  
 RL: ANT (Analyte); ANST (Analytical study)  
 (sodium salts, detn. of, in **surfactant** mixts., TLC and colorimetry in)

IT 7664-93-9, Sulfuric acid, uses and miscellaneous  
 RL: USES (Uses)  
 (colorimetric reagent contg. acetic anhydride and, for **surfactant** detn.)

IT 67-66-3, Chloroform, uses and miscellaneous  
 RL: USES (Uses)  
 (colorimetric reagent contg. aluminum chloride and, for **surfactant** detn.)

IT 108-24-7  
 RL: USES (Uses)  
 (colorimetric reagent contg. aq. sulfuric acid and, for **surfactant** detn.)

IT 7697-37-2, Nitric acid, uses and miscellaneous  
 RL: USES (Uses)  
 (colorimetric reagent contg. cerium ammonium nitrate and, for **surfactant** detn.)

IT 7446-70-0, Aluminum chloride (AlCl<sub>3</sub>), uses and miscellaneous  
 RL: USES (Uses)  
 (colorimetric reagent contg. chloroform and, for **surfactant** detn.)

IT 15078-94-1, Cerium ammonium nitrate  
 RL: USES (Uses)  
 (colorimetric reagent contg. nitric acid and, for **surfactant** detn.)

IT 7722-64-7 7726-95-6, Bromine, uses and miscellaneous  
 RL: USES (Uses)  
 (colorimetric reagent of aq., for **surfactant** detn.)

IT 1310-58-3, Potassium hydroxide, uses and miscellaneous  
 RL: USES (Uses)  
 (Colorimetric reagent of ethanol and, for **surfactant** detn.)

IT 64-17-5, Ethanol, uses and miscellaneous  
 RL: USES (Uses)  
 (colorimetric reagent of potassium hydroxide and, for **surfactant** detn.)

IT 139-96-8, Triethanolamine lauryl sulfate 151-21-3, Sodium laurylsulfate, analysis 1338-39-2D, Sorbitan monolaurate, ethoxylated 1338-41-6, Sorbitan monostearate 2386-53-0 7664-38-2D, Phosphoric acid, esters, sodium salts 9003-11-6, Ethylene oxide-propylene oxide copolymer 9016-45-9, Nonylphenol 12068-03-0, Sodium toluenesulfonate 25155-30-0, Sodium dodecylbenzenesulfonate 25322-68-3 26635-93-8  
**31566-31-1D, Glycerol monostearate, ethoxylated**  
 32073-22-6, Sodium cumenesulfonate 55348-40-8 60816-61-7 132801-48-0  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in **surfactant** mixts., TLC and colorimetry in)

IT **31566-31-1D, Glycerol monostearate, ethoxylated**  
 RL: ANT (Analyte); ANST (Analytical study)  
 (detn. of, in **surfactant** mixts., TLC and colorimetry in)

RN 31566-31-1 HCAPLUS

CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1991:104848 HCAPLUS

DN 114:104848

TI Dry-cleaning paste

IN Wu, Zhengyong; Zhuang, Weiyi

PA Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

IC ICM C11D009-02

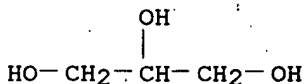
ICS C11D009-60; C11D017-00

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | CN 1043955   | A    | 19900718 | CN 1989-105458  | 19881231 |
| AB | Dry-cleaning pastes contain monoglycerides 40, distd. tallow fatty acids 20, EtOH 20, polyethylene glycol nonylphenyl ether 6, optical brighteners 4, and alkanolamines 10%.   |      |          |                 |          |
| ST | dry cleaning paste; monoglyceride dry cleaning paste; fatty acid dry cleaning paste; alkanolamine dry cleaning paste; polyoxyalkylene dry cleaning paste; tallow fatty acid cleaning paste; nonylphenol ethoxylated dry cleaning paste |      |          |                 |          |
| IT | Polyoxyalkylenes, uses and miscellaneous   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (in dry cleaning pastes)   |      |          |                 |          |
| IT | Alcohols, uses and miscellaneous   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (amino, in dry cleaning pastes)  |      |          |                 |          |
| IT | <b>Detergents</b>  |      |          |                 |          |
|    | (dry-cleaning, pastes, contg. <b>monoglycerides</b> , tall-oil <b>fatty acids</b> and <b>ethoxylated</b> nonylphenol)  |      |          |                 |          |
| IT | <b>Glycerides</b> , uses and miscellaneous   |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (mono-, in dry cleaning pastes)  |      |          |                 |          |
| IT | <b>Fatty acids</b> , uses and miscellaneous  |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (tallow, in dry cleaning pastes)   |      |          |                 |          |
| IT | <b>56-81-5D</b> , 1,2,3-Propanetriol, <b>fatty acid</b>  |      |          |                 |          |
|    | monoesters 64-17-5, Ethanol, uses and miscellaneous 9016-45-9,   |      |          |                 |          |
|    | Polyethylene glycol nonylphenyl ether  |      |          |                 |          |
|    | RL: USES (Uses)  |      |          |                 |          |
|    | (in dry cleaning pastes)   |      |          |                 |          |

IT 56-81-5D, 1,2,3-Propanetriol, fatty acid  
monoesters  
RL: USES (Uses)  
(in dry cleaning pastes)  
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1989:195212 HCAPLUS

DN 110:195212

TI Cleaner for heavily soiled hands

IN Dabrowska, Ewa; Stach, Elzbieta; Marcisiak, Jan

PA Jaworskie Zaklady Chemii Gospodarczej "Pollena", Pol.

SO Pol., 3 pp.

CODEN: POXXA7

DT Patent

LA Polish

IC ICM C11D001-00

CC 46-6 (Surface Active Agents and  
Detergents)

FAN.CNT 1

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| PL 133982  | B1   | 19850731 | PL 1982-237518  | 19820715 |

AB The title cleaner contains refined naphtha 18-30, **glycerol** monooleate 1-3, **ethoxylated** (2-4 mol) lauryl alc. 2-4, **ethoxylated** (6-12 mol) lauryl alc. 10-16, coco diethanolamide 10-16, blue dye 0.003-0.006, perfume 0.3-0.6, and water 30.394-58.687 parts. The cleaner is not toxic and removes lubricants, paints, inks, soot, etc., without causing drying of skin.

ST cleaner gel skin hand; glycerol monooleate cleaner hand; oleate glycerol cleaner hand; dodecanol ethoxylate cleaner hand; coco diethanolamide cleaner hand

IT **Detergents**

(cleaning compns., gels, for heavily soiled hands)

IT 111-42-2D, Diethanolamine, amides with coco **fatty acids** 9002-92-0, Polyethylene glycol monododecyl ether **25496-72-4**, **Glycerol** monooleate

RL: USES (Uses)

(cleaning gel contg., for hands)

IT **25496-72-4**, **Glycerol** monooleate

RL: USES (Uses)

(cleaning gel contg., for hands)

RN 25496-72-4 HCAPLUS

CN 9-Octadecenoic acid (9Z)-, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

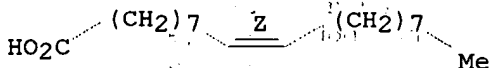
CM 1

CRN 112-80-1

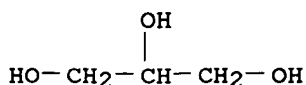
CMF C18 H34 O2

CDES 2:Z

Double bond geometry as shown.



CRN 56-81-5  
CMF C3 H8 O3



L40 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1988:551957 HCAPLUS

DN 109:151957

TI Amides of ethoxylated carboxylic acids of coconut oils as new group of surface active agents

CS Chemische Fabrik Chem-y G.m.b.H., Emmerich, Fed. Rep. Ger.

SO Pollena: Tluszcze, Srodki Piorace, Kosmet. (1987), 31(9-10), 163-70

CODEN: PTSKDF

DT Journal

LA Polish

CC 46-3 (Surface Active Agents and

Detergents)

Section cross-reference(s): 62

AB Akypo-Soft KA 250 BV, a mixt. of **glycerol** derivs. and amidated carboxymethylated poly(oxyethylene) Na salts obtained by amidation, **ethoxylation**, and carboxymethylation of coconut oil, exhibited good foam-forming properties and formed stable foam, and caused little irritation of eyes and skin. Cosmetic compns. (shampoos, washing gel) contg. the above surfactant are given.

ST ethoxylated coco amide surfactant; cosmetics ethoxylated coco amide; shampoo ethoxylated coco amide

IT **Shampoos**

(ethoxylated and carboxymethylated coconut oil amides for)

IT **Surfactants**

(anionic, coconut oil amides, ethoxylated and carboxymethylated)

IT Amides, compounds

RL: USES (Uses)

(coco, N-(hydroxyethyl), ethoxylated and carboxymethylated, **surfactants**, properties and uses of)

IT 56-81-5D, **Glycerol**, derivs.

RL: USES (Uses)

(mixts. with **ethoxylated** and carboxymethylated coconut oil amides, **surfactants**, properties and uses of)

IT 55067-88-4D, **fatty acid** amide derivs. 116898-81-8,

Akypo-Soft KA 250BV

RL: TEM (Technical or engineered material use); USES (Uses)

(**surfactants**, properties and uses of)

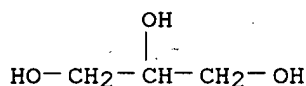
IT 56-81-5D, **Glycerol**, derivs.

RL: USES (Uses)

(mixts. with **ethoxylated** and carboxymethylated coconut oil amides, **surfactants**, properties and uses of)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1985:617283 HCAPLUS

DN 103:217283

TI Separation, identification and determination of nonionic surfactants using high-performance liquid chromatography  
 AU Koenig, Hanis; Ryschka, Roland; Strobel, Werner  
 CS Anal. Lab., Blendax-Werke R. Schneider G.m.b.H. und Co., Mainz, D-6500, Fed. Rep. Ger.  
 SO Fresenius' Z. Anal. Chem. (1985), 321(3), 263-7  
 CODEN: ZACFAU; ISSN: 0016-1152  
 DT Journal  
 LA German  
 CC 46-3 (**Surface Active Agents and Detergents**)  
 Section cross-reference(s): 80  
 AB A method is described which allows the sepn., identification, and detn. of mixts. of nonionic surfactants in a single process. The sepn. of most of the ethoxylated nonionics and of all fatty acid alkanolamides can be performed by HPLC using reversed-phase silica columns, 90:10 (vol.) MeOH-H<sub>2</sub>O as the liq. phase at approx. 170 bar with flow rate 1.5 mL/min, and a differential refractometer for detection and quant. detn. The detection limits are 2-5 µg/mL, except for the partial esters of ethoxylated fatty acids which are about 10 times lower. Ethylene oxide-propylene oxide adducts can be sepd. on columns of lower polarity with MeOH as the liq. phase.  
 ST nonionic surfactant detn liq chromatog; HPLC detn nonionic surfactant  
 IT **Fatty acids, analysis**  
 RL: ANST (Analytical study)  
 (in nonionic surfactants, sepn. and detn. of, by high-performance liq. chromatog.)  
 IT Alcohols, compounds  
 RL: USES (Uses)  
 (C12-14, ethoxylated, in nonionic surfactants, sepn. and detn. of, by high-performance liq. chromatog.)  
 IT Alcohols, compounds  
 RL: USES (Uses)  
 (C12-18, ethoxylated, nonionic surfactants, sepn. and detn. of mixts. of, by high-performance liq. chromatog.)  
 IT Alcohols, compounds  
 RL: USES (Uses)  
 (C15-18, ethoxylated, nonionic surfactants, sepn. and detn. of mixts. of, by high-performance liq. chromatog.)  
 IT Alcohols, compounds  
 RL: USES (Uses)  
 (C16 and C18-unsatd., ethoxylated, in nonionic surfactants, sepn. and detn. of, by high-performance liq. chromatog.)  
 IT Alcohols, compounds  
 RL: USES (Uses)  
 (C16-18, ethoxylated, nonionic surfactants, sepn. and detn. of mixts. of, by high-performance liq. chromatog.)  
 IT **Glycerides, compounds**  
 RL: USES (Uses)  
 (C16-18 mono-, ethoxylated, in nonionic surfactants, sepn. and detn. of, by high-performance liq. chromatog.)  
 IT Amides, compounds  
 RL: USES (Uses)  
 (fatty, ethoxylated, in nonionic surfactants, sepn. detn. of mixts. of, by high-performance liq. chromatog.)  
 IT **Surfactants**  
 (nonionic, sepn. and detn. of mixts. of, by high-performance liq. chromatog.)  
 IT 57-10-3, uses and miscellaneous 57-11-4, uses and miscellaneous  
 93-82-3 93-83-4 111-57-9 111-87-5, analysis 112-30-1 112-53-8  
 112-72-1 112-80-1, analysis 112-92-5 120-40-1 124-07-2, uses and miscellaneous 136-26-5 142-54-1 142-58-5 142-78-9 143-07-7, uses and miscellaneous 143-28-2 334-48-5 544-31-0 544-63-8, uses and miscellaneous 996-97-4 7545-23-5 7545-24-6 9002-92-0 9004-81-3  
 9004-89-1 9004-94-8 9004-95-9 9004-96-0 9004-98-2 9004-99-3  
 9005-00-9 9005-64-5 9005-67-8 9016-45-9 9036-19-5 10525-14-1  
 11111-34-5 12441-09-7D, monoesters with **fatty acids**

18738-25-5 25154-52-3 25168-73-4 25322-68-3 26183-52-8  
26635-92-7 27193-28-8 27215-38-9 27252-75-1 27306-79-2  
31566-31-1 31587-78-7 31587-80-1 31587-81-2 31799-71-0  
35627-96-4 36653-82-4 37200-48-9 42131-42-0 51158-08-8  
51192-09-7 55973-44-9 56863-02-6 61596-57-4  
95471-18-4 99264-60-5 150372-93-3

RL: USES (Uses)

(in nonionic surfactants, sepn. and detn. of, by  
high-performance liq. chromatog.)

IT 27215-38-9 31566-31-1 51158-08-8  
51192-09-7 55973-44-9 99264-60-5  
150372-93-3

RL: USES (Uses)

(in nonionic surfactants, sepn. and detn. of, by  
high-performance liq. chromatog.)

RN 27215-38-9 HCAPLUS

CN Dodecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 143-07-7

CMF C12 H24 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>10</sub>-Me

25154-52-3 25168-73-4 25322-68-3

26635-92-7 27193-28-8 27215-38-9

27252-75-1 27306-79-2 31566-31-1

31587-78-7 31587-80-1 31587-81-2

31799-71-0 35627-96-4 36653-82-4

37200-48-9 42131-42-0 51158-08-8

51192-09-7 55973-44-9 56863-02-6

61596-57-4 95471-18-4 99264-60-5

150372-93-3

RL: USES (Uses)

(in nonionic surfactants, sepn. and detn. of, by  
high-performance liq. chromatog.)

IT 27215-38-9 31566-31-1 51158-08-8

51192-09-7 55973-44-9 99264-60-5

150372-93-3

RL: USES (Uses)

(in nonionic surfactants, sepn. and detn. of, by  
high-performance liq. chromatog.)

RN 31566-31-1 HCAPLUS

CN Octadecanoic acid, monoester with 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 2

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

RN 51158-08-8 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with  
1,2,3-propanetriol monoctadecanoate (2:1) (9CI) (CA INDEX NAME)

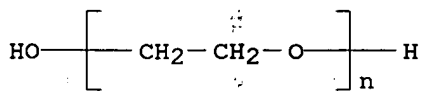


CM 1

CRN 25322-68-3

CMF (C2 H4 O)n H2 O

CCI PMS



CM 2

CRN 57-11-4

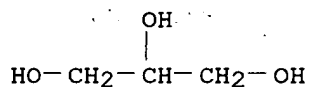
CMF C18 H36 O2



CM 3

CRN 56-81-5

CMF C3 H8 O3



RN 51192-09-7 HCAPLUS

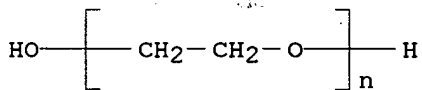
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with  
1,2,3-propanetriol mono-(9Z)-9-octadecenoate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3

CMF (C2 H4 O)n H2 O

CCI PMS



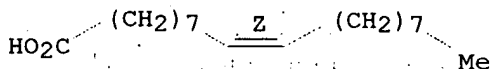
CM 2

CRN 112-80-1

CMF C18 H34 O2

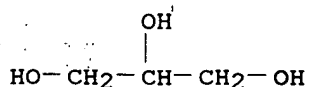
CDES 2:Z

Double bond geometry as shown.



CM 3

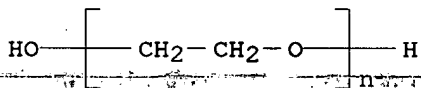
CRN 56-81-5  
CMF C3 H8 O3



RN 55973-44-9 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with  
1,2,3-propanetriol monohexadecanoate (2:1) (9CI) (CA INDEX NAME)

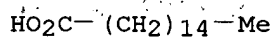
CM 1

CRN 25322-68-3  
CMF (C2 H4 O)<sub>n</sub> H2 O  
CCI PMS



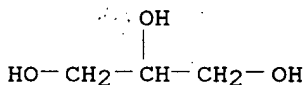
CRN 57-10-3  
CMF C16 H32 O2

CRN 57-10-3  
CMF C16 H32 O2



CM 3

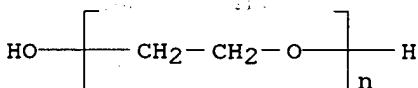
CRN 56-81-5  
CMF C3 H8 O3



RN 99264-60-5 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with  
1,2,3-propanetriol monotetradecanoate (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 25322-68-3  
CMF (C2 H4 O)<sub>n</sub> H2 O  
CCI PMS



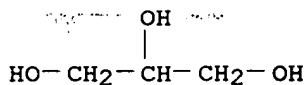
CM 2

CRN 544-63-8  
CMF C14 H28 O2

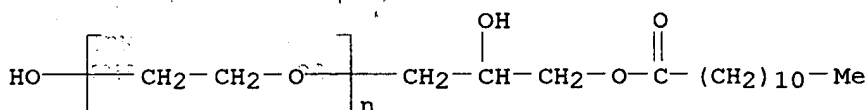
HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>12</sub>-Me

CM 3

CRN 56-81-5  
CMF C3 H8 O3



RN 150372-93-3 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.-[2-hydroxy-3-[(1-oxododecyl)oxy]propyl]-  
.omega.-hydroxy- (9CI) (CA INDEX NAME)



L40 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1984:573470 HCAPLUS

DN 101:173470

TI Mixture of salts of phosphate esters of polyoxyethylenated partial  
glycerides of higher fatty acids

IN Ropuszynski, Stanislaw; Perka, Jerzy; Rutkowska, Krystyna

PA Politechnika Wroclawska, Pol.

SO Pol., 4 pp.

CODEN: POXXA7

DT Patent

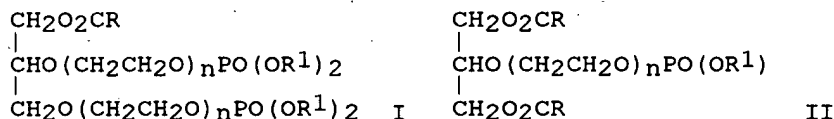
LA Polish

IC C07F009-08; B01F017-14

CC 46-3 (Surface Active Agents and  
Detergents)

FAN.CNT 1

|    | PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|----|------------|------|----------|-----------------|----------|
| PI | PL 123434  | B2   | 19821030 | PL 1981-229336  | 19810121 |
| GI |            |      |          |                 |          |



AB The title compds. I and II (R = residue of lauric, stearic, oleic, or erucic acid; R<sup>1</sup> = K, Na, or ethanolamine residue; n = 9-50), useful as surfactants in the textile, cosmetic, and plastic industries, are prepd. by phosphorylation of partial glycerides of the above fatty acids with polyphosphoric acid (III) contg. 82-84% P<sub>2</sub>O<sub>5</sub> and neutralization of the obtained products with inorg. or org. bases. Thus, 258.0 g III (P<sub>2</sub>O<sub>5</sub> content 82.5%) was added over 15 min to 1133.4 g polyoxyethylated partial glycerides of coconut oil obtained by addn. of 1980.5 g ethylene oxide to

213.8 g partial glycerides and maintained at 343 K. The temp. was raised to 393K and after 2 h the mixt. was cooled and treated (500.0 g) with 0.65 dm3 3M methanolic KOH. Removal of MeOH by distn. in vacuo gave a mixt. of salts having acid no. 11.3 mg KOH/g, P content 5.52%, and pH of 1% aq. soln. 7.5.

ST phosphorylated **ethoxylated glyceride** salt surfactant;  
**glyceride ethoxylated** phosphorylated surfactant

IT **Surfactants**

(phosphorylated **eth xylated fatty acid**  
 mono- and **diglycerides**, potassium, sodium and ethanolamine  
 salts)

IT **Glycerides**, compounds

RL: USES (Uses)

(di-, **ethoxylated**, phosphate esters, potassium, sodium and  
 ethanolamine salts, **surfactants**)

IT **Glycerides**, compounds

RL: USES (Uses)

(mono-, **ethoxylated**, phosphate esters, potassium, sodium and  
 ethanolamine salts, **surfactants**)

IT 25322-68-3D, ethers with **fatty acid** mono- and

**diglycerides**, phosphate esters, potassium, sodium and ethanolamine  
 salts 92416-01-8 92471-04-0 92471-06-2

92471-08-4

RL: TEM (Technical or engineered material use); USES (Uses)

(**surfactants**)

IT 92416-01-8 92471-04-0 92471-06-2

92471-08-4

RL: TEM (Technical or engineered material use); USES (Uses)

(**surfactants**)

RN 92416-01-8 HCAPLUS

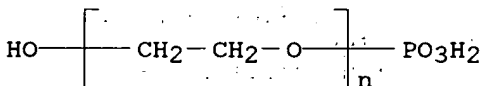
CN Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-hydroxy-, ether with  
 1,2,3-propanetriol, monooctadecanoate (2:1), tetrapotassium salt (9CI). (CA  
 INDEX NAME)

CM 1

CRN 25852-91-9

CMF (C2 H4 O)n H3 O4 P

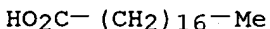
CCI PMS



CM 2

CRN 57-11-4

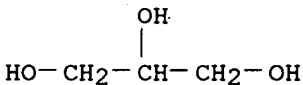
CMF C18 H36 O2



CM 3

CRN 56-81-5

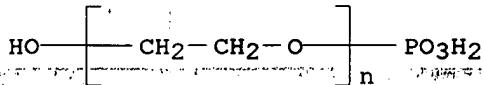
CMF C3 H8 O3



RN 92471-04-0 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-hydroxy-, ether with 1,2,3-propanetriol dioctadecanoate (1:1), dipotassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 25852-91-9  
CMF (C2 H4 O)n H3 O4 P  
CCI PMS



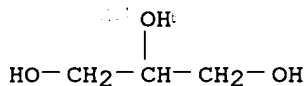
CM 2

CRN 57-11-4  
CMF C18 H36 O2



CM 3

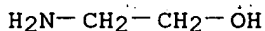
CRN 56-81-5  
CMF C3 H8 O3



RN 92471-06-2 HCAPLUS  
CN Ethanol, 2-amino-, compd. with .alpha.-phosphono-.omega.-hydroxypoly(oxy-1,2-ethanediyl) ether with 1,2,3-propanetriol monoctadecanoate (2:1), (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 141-43-5  
CMF C2 H7 N O

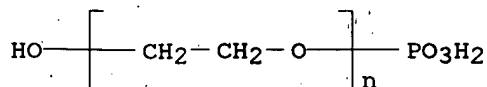


CM 2

CRN 92471-05-1  
CMF (C2 H4 O)n (C2 H4 O)n C21 H44 O10 P2  
CCI IDS, PMS  
CDES \*

CM 3

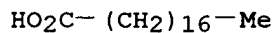
CRN 25852-91-9  
CMF (C2 H4 O)n H3 O4 P  
CCI PMS



CM 4

CRN 57-11-4

CMF C18 H36 O2

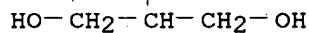


CM 5

CRN 56-81-5

CMF C3 H8 O3

OH



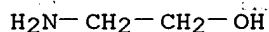
RN 92471-08-4 HCAPLUS

CN Ethanol, 2-amino- compd. with .alpha.-phosphono-.omega.-hydroxypoly(oxy-1,2-ethanediyl) ether with 1,2,3-propanetriol dioctadecanoate (2:1) (9CI)  
(CA INDEX NAME)

CM 1

CRN 141-43-5

CMF C2 H7 N O



CM 2

CRN 92471-07-3

CMF (C2 H4 O)n C39 H77 O8 P

CCI IDS, PMS

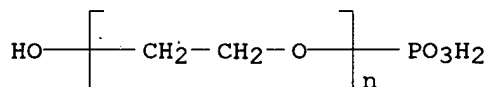
CDES \*

CM 3

CRN 25852-91-9

CMF (C2 H4 O)n H3 O4 P

CCI PMS



CM 4

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

CM 5

CRN 56-81-5

CMF C3 H8 O3

OH

HO-CH<sub>2</sub>-CH-CH<sub>2</sub>-OH

L40 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1984:123199 HCAPLUS

DN 100:123199

TI Transparent jellylike cleaning agents

PA Shiseido Co., Ltd., Japan

SO Jpn. Tokkyo Koho, 5 pp.

CODEN: JAXXAD

DT Patent

LA Japanese

IC C11D001-825

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | JP 58039198  | B4   | 19830827 | JP 1976-62745   | 19760529 |
| AB | Cleaning agents (100 parts) contain higher alc.-ethylene oxide adducts 3-10, fatty acid diethanolamides 5-10, glycerin diesters or dialkyl malates 4-6 parts, and other additives. Thus, coconut oil fatty acid acyl-L-glutamic acid monotriethanolamine 30, lauric acid triethanolamine [89187-80-4] soap 37, and glycerin 13 g were stirred at 70-80.degree., mixed with a heated mixt. of poly(oxyethylene) reduced lanolin 1, coconut fatty acid diethanolamide 7.5, and poly(oxyethylene)lauryl alc. ether [9002-92-0] 5 g, stirred at 70-80.degree., mixed with 5.5 g glycerol di-2-heptylundecanoate [64647-53-6], stirred appr. 20 min, mixed with a color, a perfume, and water to 100 g, and cooled to prep. a transparent jellylike cleaning agent. |      |          |                 |          |
| ST | transparent jellylike cleaning agent; glycerin diester cleaning agent; ethoxylated alc. cleaning agent; fatty diethanolamide cleaning agent; malate dialkyl cleaning agent   |      |          |                 |          |
| IT | <b>Soaps</b><br>RL: USES (Usés)<br>(cleaning agents, contg. <b>ethoxylated</b> alcs. and <b>fatty acid</b> diethanolamide and <b>glycerol</b> diesters, transparent and jellylike)   |      |          |                 |          |
| IT | Transparent materials<br>(cleaning agents, jellylike, contg. <b>ethoxylated</b> alcs. and <b>fatty acid</b> diethanolamides and <b>glycerin</b> diesters)  |      |          |                 |          |
| IT | Gels<br>(cleaning agents, transparent, contg. <b>ethoxylated</b> alcs. and <b>fatty acid</b> diethanolamides and <b>glycerin</b> diesters)   |      |          |                 |          |
| IT | Alcohols, compounds<br>RL: USES (Uses)<br>( <b>ethoxylated</b> , cleaning agents contg. <b>fatty acid</b> diethanolamides and <b>glycerin</b> diesters, transparent and jellylike)   |      |          |                 |          |
| IT | <b>Detergents</b>  |      |          |                 |          |

(cleaning compns., contg. **ethoxylated** alcs. and **fatty acid** diethanolamides and **glycerin** diesters, transparent and jellylike)

IT 120-40-1  
RL: USES (Uses)  
(cleaning agents, contg. **ethoxylated** alcs. and dialkyl malates, transparent and jellylike)

IT 63623-64-3 **64647-53-6** 89187-79-1  
RL: USES (Uses)  
(cleaning agents, contg. **ethoxylated** alcs. and **fatty acid** diethanolamides, transparent and jellylike)

IT 38732-22-8D, acyl  
RL: USES (Uses)  
(cleaning agents, contg. **ethoxylated** alcs. and **fatty acid** diethanolamines and **glycerin** diesters, transparent and jellylike)

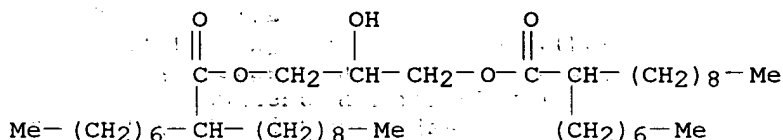
IT 111-42-2D, fatty amides  
RL: USES (Uses)  
(cleaning agents, contg. **ethoxylated** alcs. and **glycerin** diesters, transparent and jellylike)

IT 9004-98-2  
RL: USES (Uses)  
(cleaning agents, contg. **fatty acid** diethanolamides and dialkyl malate, transparent and jellylike)

IT 9002-92-0  
RL: USES (Uses)  
(cleaning agents, contg. **fatty acid** diethanolamides and glycerin diesters, transparent and jellylike)

IT **64647-53-6**  
RL: USES (Uses)  
(cleaning agents, contg. **ethoxylated** alcs. and **fatty acid** diethanolamides, transparent and jellylike)

RN 64647-53-6 HCAPLUS  
CN Undecanoic acid, 2-heptyl-, 2-hydroxy-1,3-propanediyl ester (9CI) (CA INDEX NAME)



L40 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
AN 1980:131108 HCAPLUS  
DN 92:131108  
TI Oxyethylated lipid system containing surface-active compounds  
IN Widmann, Lutz  
PA Ger. Dem. Rep.  
SO Ger. (East), 6 pp.  
CODEN: GEXXA8  
DT Patent  
LA German  
IC A61K007-48  
CC 46-4 (**Surface Active Agents** and **Detergents**)  
Section cross-reference(s): 62, 63

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | DD 137784  | T    | 19790926 | DD 1977-201390  | 19771006 |
| AB | The addn. of .gtoreq.3% mixt. of 80-95% coconut fatty acid diethanolamides and 5-20% <b>glycerol</b> [56-81-5] to plant, animal, paraffinic, and/or synthetic oils contg. <b>ethoxylated</b> alcs. (esp. alkylphenols) improves the stability of emulsions prepd. with the mixts., |      |          |                 |          |



useful in the manuf. of cosmetics and pharmaceuticals. Thus, a mixt. of ethylhexyl esters of coconut fatty acids 10, paraffin oil 20, neat's-foot oil 25, sunflower oil 25, 85:15 coconut fatty acid diethanolamide-glycerol mixt. 10, C9H19C6H4(OCH2CH2)4OH 5, and C9H19C6H4(OCH2CH2)8-9OH 2 parts dispersed rapidly in water to give stable emulsions.

ST emulsifier nonionic oil; amide hydroxyethyl emulsifier; glycerol emulsifier oil; ethanolamide emulsifier oil

IT Paraffin oils  
Rape oil  
Sunflower oil  
RL: USES (Uses)  
(emulsifiers for)

IT Emulsifying agents  
(surfactants-glycerol, for oils)

IT Amides, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fatty, N,N-bis(hydroxyethyl), emulsifiers, for oils)

IT Oils  
(neats-foot, emulsifiers for)

IT Oils  
RL: USES (Uses)  
(sesame, emulsifiers for)

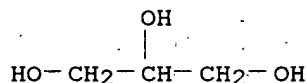
IT 110-27-0 3687-45-4 5333-42-6  
RL: USES (Uses)  
(emulsifiers for)

IT 56-81-5, uses and miscellaneous 111-42-2D, amides with coconut fatty acids 9004-98-2 9016-45-9 9036-19-5  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifiers, for oils)

IT 56-81-5, uses and miscellaneous  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifiers, for oils)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



L40 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2001 ACS

AN 1977:92256 HCAPLUS

DN 86:92256

TI Monoglyceride polyoxyalkylene ether sulfates

IN Nakase, Toshiaki; Hidaka, Toru

PA Riken Vitamin Oil Co., Ltd., Japan

SO Japan. Kokai, 6 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

IC C07C141-08

CC 46-3 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 51128912 | A2   | 19761110 | JP 1975-52521   | 19750502 |
|    | JP 58033867 | B4   | 19830722 |                 |          |

AB The ether sulfates had good detergency and did not irritate the skin. Thus, glycerol monolaurate was treated with 7 mol ethylene oxide [75-21-8], sulfated with ClSO<sub>3</sub>H, and neutralized with aq. NaOH to prep. a detergent. Hardened coconut or palm oil fatty acid monoglyceride was also used as a starting material.

ST monoglyceride ethoxylate sulfate detergent;  
glyceride mono ethoxylate sulfate

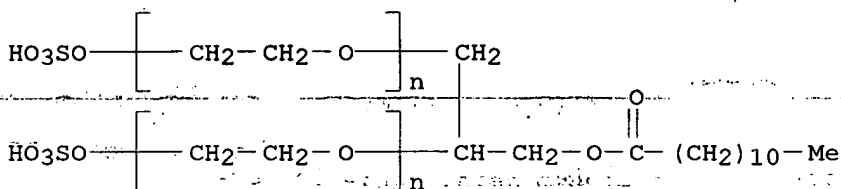
IT **Detergents**  
 (sulfates of **ethoxylated monoglycerides**, with skin compatibility)

IT **Glycerides**, uses and miscellaneous  
 RL: USES (Uses)  
 (mono-, **alk xylated**, sulfates, as **detergents** with skin compatibility)

IT 75-21-8D, reaction products with **fatty acid monoglycerides**, sulfates, salts **61987-21-1**  
 RL: USES (Uses)  
 (**detergents**, with skin compatibility)

IT **61987-21-1**  
 RL: USES (Uses)  
 (**detergents**, with skin compatibility)

RN 61987-21-1 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[1-[[[(1-oxododecyl)oxy]methyl]-1,2-ethanediyl]bis[.omega.-(sulfooxy)-, disodium salt (9CI) (CA INDEX NAME)



● 2. Na

L40 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1976:496124 HCAPLUS  
 DN 85:96124  
 TI Non gelling, readily dispersible surfactant  
 IN Ishisato, Sukemasa; Imai, Shoichi  
 PA Riken Vitamin Oil Co., Ltd., Japan  
 SO Japan., 4 pp.  
 CODEN: JAXXAD  
 DT Patent  
 LA Japanese  
 IC C09K003-00  
 CC 46-4 (Surface Active Agents and Detergents)

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | JP 51011076  | B4   | 19760408 | JP 1970-68559   | 19700805 |
| AB | To prepare the surfactant, a molten mixt. of fatty acid monoesters of <b>glycerol</b> [56-81-5] 40-70, fatty acid monoesters of propylene glycol [57-55-6] 40-70, and hydrophilic surfactant selected from fatty acid esters of poly(oxyethylene) sorbitan [12441-09-7] and <b>ethoxylated glycerol</b> and metal salts of fatty acids <10 parts was atomized to give a fine powder. The surfactant swelled and dispersed in water at <30.degree. and did not gel at high temps. The surfactant was useful in foods, medicines, paints, etc. |      |          |                 |          |
| ST | surfactant ethoxylated alc mixt; polyoxyethylene deriv mixt surfactant   |      |          |                 |          |
| IT | <b>Surfactants</b><br>(mixtures, nongelling, contg. <b>fatty acid</b> monoesters of <b>glycerol</b> and propylene glycol)  |      |          |                 |          |
| IT | 1,2,3-Propanetriol, monoesters with <b>fatty acids</b><br>1,2-Propanediol, monoesters with <b>fatty acids</b><br>Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-.alpha.'-1,2,3-  |      |          |                 |          |

propanetriyltris[.omega.-hydroxy-, esters with **fatty acids**  
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ethers with sorbitan esters  
Sorbitan, ethoxylated, esters with **fatty acids**  
RL: USES (Uses)  
(**surfactant** mixtures contg.)